



HHS Public Access

Author manuscript

J Nurs Care Qual. Author manuscript; available in PMC 2019 October 01.

Published in final edited form as:

J Nurs Care Qual. 2018 ; 33(4): 348–353. doi:10.1097/NCQ.0000000000000316.

Implementation of a Workflow Initiative for Integrating Transitional Care Management Codes in a Geriatric Primary Care Practice

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Abstract

We implemented a Transitional Care Management service led by a nurse care manager. An interdisciplinary team developed a workflow using a Plan-Do-Study-Act cycle for contacting patients. Of the 146 (97.9%) eligible patients, 143 (97.9%) had a phone call within 48 hours. There were 84/120 (70.0%) and 117/120 (97.5%) attendance rates of those attending visits within a 7 and 14 days. A care manager-led workflow was successfully and easily implemented within a primary care practice.

Keywords

care manager; Medicare; quality improvement; primary care; transitional care management; workflow

Formal quality improvement (QI) initiatives can be helpful to mitigate the risks to patients during transitions of care between hospital and home. Confusion may occur with discharge instructions^{1,2} and changes in medications or their dosing,^{3,4} or there may lack appropriate

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There are no conflicts of interest pertaining to this manuscript.

Financial Disclosure

Dr. Batsis receives funding from the National Institute on Aging of the National Institutes of Health (K23AG051681). The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health. Support was also provided by the Dartmouth Health Promotion and Disease Prevention Research Center supported by Cooperative Agreement Number U48DP005018 from the Centers for Disease Control and Prevention, the Dartmouth-Hitchcock Population Health Collaboratory. The findings and conclusions in this article are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

follow-up services.⁵ Actively intervening in the postdischarge period results in fewer readmissions as compared to those not receiving transitional care.⁶ In a randomized control trial of 363 elderly patients, use of a transitional care model resulted in a 52% reduction in re-hospitalizations per patient.⁷ Likewise, a study of 750 community-dwelling adults age 65 or older demonstrated that receiving a transitional care intervention had lower hospitalization rates at 30 and 90 days.⁸

The Centers for Medicare & Medicaid Services (CMS) recognize the 30-day period following an acute hospital or nursing home discharge to the home-based community setting as a critical period. Nearly 1 in 5 Medicare beneficiaries discharged from the hospital—approximately 2.6 million seniors—are readmitted within 30 days, at a cost of over \$26 billion every year.⁹ Effective January 1, 2013, the CMS provided guidelines and regulations to reimburse practices that monitor these high risk patients.¹⁰ This new benefit encourages multidisciplinary team care by rewarding telephone communication within 48 hours (2 business days) of discharge and a clinic-based visit within a 14 day period. This is mediated through the new current procedural terminology codes (99495 and 99496), which reflect patient complexity and improve reimbursement to primary care practices for this work. Physicians, qualifying advanced practice registered nurses (APRNs), and physician assistants (PAs) can all code a transitional care management (TCM) service for patients, following hospital, skilled nursing facility, community mental health center, outpatient observation, or partial hospitalization discharge. This mechanism also included transitions to home or to an assisted living from the hospital or nursing home setting.

To improve practice efficiency, we wanted to establish a formal process to integrate this covered Medicare benefit. Our multidisciplinary team consisted of nurses, care managers, physicians, flow staff, and clinic administrators who developed a protocol to facilitate such transitions. The purpose of our QI initiative was to begin using the transitional care management service for our patients as this, to our knowledge, has not been formally demonstrated within a busy primary care practice setting. To accomplish this, we needed to develop workflows, train staff, and measure process outcomes to create an opportunity to enhance patient care and reimbursement. We hypothesized by applying QI principles that we could successfully meet the designated criteria put forth by Medicare and integrate this service by optimizing practice efficiency.

METHODS

Study location and population

Dartmouth-Hitchcock serves 1.5 million persons from a circumscribed area of rural New Hampshire/Vermont. The total clinical full time equivalent for this pilot project was 6.12 for the study period, consisting of an average of 1.76 clinical full-time equivalents per month of physicians and associate providers (APRNs and PAs). Care manager full-time equivalent positions amounted to 1.5. Our average number of weekly visits within the section is approximately 550. The QI initiative began in March 2016 and continued until November 2016. Because the nature of the study was meant for process improvement, this study was not reviewed by our local Institutional Review Board.

For the purposes of this project, all paneled older adults, on 1 of 4 teams within our practice that were discharged from an inpatient facility or skilled nursing facility were considered part of our cohort. Patients were considered a ‘TCM patient’ if they were discharged from these venues either to home or an assisted/independent living. All individuals were tracked in a database managed by the care managers, and overseen by the senior author, details which are outlined below.

Planning the intervention

We used the SQUIRE guidelines¹¹ for reporting QI initiatives. The key stakeholders who were involved in this project were chosen to reflect optimal patient care and safety, and to improve efficiency and utilization. Members of the planning team included nurses, care managers, clinicians (physicians and other providers – APRNs and PAs), flow staff, and clinic administrators. Senior-level administration provided resources to ensure the project’s success.

The above team met weekly, with frequent communication also by email, to identify sources of discharge information coming into the clinic. This included discharge notifications from within our own institution, using electronic medical record (EMR) notifications, and from outside hospitals or skilled nursing facilities. Additionally, we observed that information entered our clinic by phone and facsimile. Outside phone calls were received from the team nurses or to the central call center from a variety of sources: local homecare agencies or pharmacies, patients, outside providers, and concerned family members. Often, clinicians did not have the appropriate or complete documentation at the time of the visit, requiring ancillary staff to seek this information on an urgent basis. Because these codes were new, no standardized workflows were in place that could capture the required elements of documentation as part of this endeavor. For instance, when discharge information was received by facsimile, documentation was placed in the clinical provider’s mailbox, which inevitably caused delay in its receipt by the care manager who needed to initiate the TCM call in a timely manner. The workflow is outlined in the Supplemental Digital Content, Figure.

We ascertained the need to establish, as part of the workflow, a process for formal documentation of the care manager’s TCM note. This was sent to the secretary message pool, with a request to schedule the patient’s visit within 14 days. Some clinic visits that were meant to review the hospitalizations were scheduled too early; care managers adjusted the date at the initial phone contact and identified any areas of concern. The team opted to have patients called 3 weeks out from discharge to determine any further care needs after the follow up appointment in the clinic. Although this was not part of the pilot or part of the formal TCM requirements, our care managers believed it was important due to the frail nature of our patient population.

Our institution has full information technology technical support, allowing the clinical team to meet with our informatics team to develop a new Episode of Care termed the Post Hospital Discharge with an episode type labeled as TCM. This involved the creation of a standard electronic template for any phone calls by the care manager or nursing staff.

As part of the planning process, extensive education to the care managers, nursing staff, flow staff, and clinician staff was provided by the director of clinical documentation improvement. The role of our coding team was to assist in training, interpret the regulatory coverage determination, and address any questions about specific Medicare requirements. A database was created to keep track of each visit. We tracked medical record number, care manager, discharge date, date of phone call, initial appointment date, provider, arrival date and dates of follow-up calls. We also tracked patients who declined a hospital follow-up appointment, had booked an appointment and later cancelled, or needed to change their appointment, which resulted in their being outside of the time frame for the clinic-based visit, leaving them ineligible for TCM.

Intervention

A process improvement intervention was designed by our interdisciplinary team (Supplemental Digital Content, Figure). The goal was to develop a work flow for contacting patients following an eligible stay (described above) by phone, within a 2 business day time frame. A secondary goal was to preferentially schedule patients within a 7 business day window period, and if not possible, extend to 14 days. A Plan-Do-Study-Act cycle refined the pilot allowing incremental changes to be made. All staff were trained that handled phone calls or paperwork involving a patient returning to the community setting to forward any information to the care managers. A standardized template was created and finalized by our informatics team that allowed a review of: reason for hospitalization or skilled nursing facility visit, medication list, laboratory studies or treatments needed, verification of the ordered home-based services, and confirmation or arrangement of a posthospital visit within the time frame specified if not already scheduled.

Training in the use of our new episode type previously mentioned took place directly with our care managers. This involved scheduled meetings with our informatics team and the use of electronic presentations to demonstrate the use of the new template in our EMR system. The care managers were also trained by the senior author in the use of the tracking database, using a Microsoft Excel spreadsheet to enter selected data points, such as name of case manager, date of hospital or skilled nursing facility discharge, date of TCM call, and date of hospital follow up visit. If patient declined a follow up visit, this was also noted in the spreadsheet. Training within the team took place on the use of the new workflow, with several revisions required, looking at the many ways discharge information is received in the practice. The care manager called patients with a 24–48 business period of discharge to the home setting to obtain the information on the template. All information was communicated iteratively to the clinical providers and nursing staff.

A number of structured educational sessions were arranged by clinic administrators for the support staff. Information was also provided at clinician staff meetings. All call-center staff and secretaries were directed to forward any information about discharges to the care managers, and when scheduling a TCM appointment to ensure it fell within the aforementioned guidelines. To prevent information from not reaching care managers, nurses were also asked to communicate information to the care manager of the team in a timely manner. The clinicians were educated in the use of the 99495 and 99496 to reflect patient

complexity (moderate or high) and if the visit was within 7 or 14 days of the discharge. Our informatics lead provided frequent walk-throughs of how to use the EMR to capture and document this information to all appropriate staff members. At the time of the encounter, the medical assistants linked the TCM episode to the current encounter. Our providers then used a TCM billing tool that was created for the providers to certify TCM and to choose the level of service code. The General Internal Medicine's data analyst was able to produce a list of patients that were considered hospital check patients and their appropriate billing code to ensure they were coded correctly. A data analyst identified our team's patients with a hospital billing charge to identify eligible patients, at which time the outpatient billing code for the first encounter was identified. Feedback was provided to ensure the appropriate evaluation and management code for TCM was billed.

Using the database as a starting point, the clinical team physically reviewed each of the encounters and worked collaboratively with the coding team to ensure all criteria were met. Iterative feedback was provided during weekly clinical meetings of either errors in the proposed workflow or whether additions to the workflow from the provider, nurse, medical assistant, secretarial staff, or care managers were needed. This was integrated into existing workflows until the conclusion of the QI process.

Outcome measures

The primary goal of this study was to achieve a high percentage of phone call follow up in this high-risk patient population. A secondary goal was to ensure the documentation and billing requirements captured the work being performed. Using the dataset, the number of TCM phone calls was assessed, as was the number accepting/refusing a follow-up appointment. All dates were calculated from the time of discharge to the time of phone call and visit. Medicare did not count weekend days as business days. Subjects who were readmitted were tracked, as were the number of scheduled and arrived appointments within the time periods (7 or 14 days). Within the first 3 months, the coding team ascertained the percentage of codes correctly billed as a TCM (and not an evaluation and management code) on a sample of encounters. We ascertained the relative change in relative value units and assessed the preliminary cost charges as a result of this initiative.

RESULTS

We identified 153 patients during the pilot period from 1.76 clinical full-time equivalents of clinical providers. There were 3 calls placed outside of target 48 hour window. We excluded patients that were directly admitted to skilled rehabilitation (n=2), discharged as a same-day admission (n=1), and 1 that inadvertently was classified as an emergency room visit. Of these patients, 146 (97.9%) were eligible for phone calls, of which 143 (97.9%) had a phone call initiated and completed within the designated 48 hour period. Of those eligible for phone calls, we conservatively demonstrated that the phone call rates were still favorable (95.4%). Of the 131 patients who agreed to a follow-up appointment, 88 (66.7%) had an appointment scheduled within 7 days, and 128 (97.7%) within 14 days by the call center. We identified 120 patients who checked in for their appointments, of which 84 (70.0%) and 117

(97.5%) were within the 7 and 14 day window periods, respectively. Mean number of days from discharge date to outpatient visit was 6.92 ± 3.73 .

Of the 55 visits audited by the certified coders, 51 (92.7%) had appropriate documentation. The estimated additional work relative value units as a result of this initiative that were generated was 36.1 units over the 110 day period. Projected an additional annualized relative value units were 104.2 units for this team, amounting to 59.2 units per clinical full-time equivalent clinician for a panel of 2,000 patients. The expected total sum of added revenue for this project amounted to \$14,334 by using the TCM codes, annualized to \$47,562, for our primary care team alone, based on Medicare reimbursement rates.

DISCUSSION

Our findings demonstrate an effective TCM workflow that captures the efforts of the team, improves patient follow-up visits, and increases productivity for providers. Our formal initiative clearly demonstrates the effectiveness of implementing a process in a primary care academic setting using a team-based approach for improving quality care.

Failure to understand hospital discharge instructions is common in older adults. Transitional care involves helping patients and caregivers understand discharge instructions, completing medication reconciliation, and assuring that any planned home care interventions are in place. Lack of follow-up care can greatly increase costs in Medicare beneficiaries by fueling readmission rates. A study by Costantino examined whether a post-discharge telephonic intervention for patients reduced 30-day hospital readmissions as compared to a matched control population.¹² Post-discharge calls were placed to patients after discharge from a hospital. Re-admissions were monitored through health care claims data analysis. Of 48,538 Medicare members who received the intervention, 4504 (9.3%) were readmitted to the hospital within 30 days, as compared to 5598 controls (11.5 %). Evidence suggests that such types of programs may be effective in both medical and surgical populations,^{3,4} although there is some skepticism that it will lead to Medicare savings. Future research evaluating this program is critically needed.

By applying this workflow, promoting educational training, and measuring process outcomes, all members of the interdisciplinary team were able to effectively implement the new Medicare guidelines, creating a low-cost opportunity to enhance patient care. We were also able to expedite the ability for a provider to assess patients requiring earlier visits. The financial benefit of our quality improvement initiative was evident. We captured additional revenue for existing work and delivered best practice to patients. This process emphasizes the importance of teamwork and training across the interdisciplinary team. In clinical microsystems, the unwritten/measured outcomes often allow individuals to work effectively together to improve efficiencies in care.¹³ This process importantly exposed other members to elements of a quality improvement process.

Timely provider and team meetings allowed for the early success in implementing the workflow. Our care managers identified this QI process as a strength and believed that the right care was given to the patient at the right time. Improved provider, team and patient

satisfaction resulted. Patients seen in a timely manner maintained the goal of keeping them at home and the number of readmissions decreased. From an efficiency standpoint, our results suggest that a phone call, rather than a clinic visit, from a care manager could potentially allow adequate triage and troubleshooting, thereby reducing costs of multiple visits following a discharge.

Our process provided a considerable number of insights. First, team members at all levels were eager to become involved, and the role of the interdisciplinary team was critical to the project's success. Second, the engagement of all stakeholders at the outset allowed the team to demonstrate the effectiveness of this intervention. Third, data and registry management permitted tracking of participants without considerable added workload in a busy clinical environment, but such clinical data could subsequently inform practice. The improvement in relative value units by providers suggests that with guidance and support from ancillary staff, this objective can be achieved. Last, the process could easily be adapted across other health systems using EMRs, optimizing the process at the local level, and by evaluating patient satisfaction and other implementation science outcomes more formally. We believe that the process is simple enough in the primary care setting that will allow its sustainability in the years to come. The development of a formal workflow process for the use of the Medicare TCM codes has led to great organizational and cost success within our primary care geriatric practice.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

Acknowledgments

We thank the support staff of General Internal Medicine for their assistance in this pilot project, and in particular Lori McDonald, RN, George F. Routzhan, Thomas Mead, and Jessica Osgood, for their assistance.

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