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Calls by RN Care Managers Post-Hospitalization Improve Transitions of Care

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Learning Outcome

After completing this learning activity, the ambulatory care nurse will have a broad understanding of programs focused on improving transitions of care and the positive impact that follow-up calls by care coordinators have on transitions of care for patients moving from the hospital setting back to the community.

Learning Engagement Activity

Download and review: Centers for Medicare & Medicaid Services (CMS). (2016). *Community-based care transitions program*. Available at <https://innovation.cms.gov/initiatives/CCTP>

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Calls by RN Care Managers Post-Hospitalization Improve Transitions of Care

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Numerous evidence-based models have been developed to improve transitions of care (TOC) for patients moving from the hospital setting back to the community. These models have resulted in positive outcomes by improving patient care and reducing healthcare costs. The Affordable Care Act (ACA) has highlighted the need to address TOC issues on a national level by creating initiatives to improve the process (U.S. Department of Health & Human Services [HHS], 2017). The ACA, in conjunction with the Centers for Medicare & Medicaid Services (CMS) and the National Committee for Quality Assurance (NCQA) Patient-Centered Medical Home (PCMH) model, demonstrate the commitment on a national level to improve the TOC process for patients. Current TOC initiatives include the development of the Community-Based Care Transitions Program in February 2012 (CMS, 2016a), the Hospital Readmission Reduction Program in October 2012 (CMS, 2016c), and the ability for providers to receive an increased reimbursement rate for Transitional Care Management Services, which started in January 2013 (CMS, 2016b). A press release from the HHS (2014) announced that these programs have had a significant impact on reducing the hospital readmission rates among Medicare beneficiaries from a consistent 19% from 2007–2011 to 17.5% in 2013. In addition to the ACA, the PCMH model has transitions of care as a focus. Providing coordinated care is one of the five key components of the PCMH model, and the 2014 PCMH Standards and Guidelines includes coordinating care transitions. Standard 5C of the Standards and Guidelines states that the PCMH clinic “nurse care manager or care coordi-

nator will be responsible for contacting patients that were admitted and discharged from the hospital within 72 hours to ensure medications and allergies are reconciled in the patient's chart, schedule follow-up appointments if needed, and obtain additional information as needed” (NCQA, 2014, p. 64).

Registered Nurse Care Managers (RNCMs) can be an instrumental part of a multidisciplinary healthcare team to provide care coordination and transition management (CCTM) in a PCMH practice. The RNCM functions as the hub of the wheel for coordinating care when a patient is discharged from the hospital. As the primary contact who reaches out to recently discharged patients, the RNCM can perform a comprehensive assessment identifying and addressing any issues, needs, or gaps in care. The critical thinking skills that are central to the practice of all RNs guide the conversation with the patient to identify medical issues. These skills also allow RNCMs to recognize other areas of need such as the presence or absence of social support, symptoms of depression, health literacy level, and basic resources such as transportation to appointments. The preparation, unique skill set, and knowledge base of the RNCM allows him or her to address the next steps of the care transition process, which includes coordinating care (home health, referrals to specialists, communication with the primary care provider [PCP] and other members of the care team), leveraging community resources, educating patients and their caregivers about medications and chronic illness, and engaging patients and their caregivers to develop patient-specific goals and care plans. These interventions by the RNCM enhance continu-

ity and quality of care for the patient and ensure a more successful transition from hospital to home.

Literature Review

Studies have shown the benefits of post-hospital discharge contacts to patients, including higher rates of completed hospital follow up visits, a reduction in hospital readmissions, and the ability to promptly identify issues that could lead to poor outcomes. One study evaluated post-hospital telephone support from a call center for a large population of patients (n=48,538) enrolled in a Medicare Advantage Plan. It showed that the number of patients who were seen by their provider after hospitalization increased from 72.3% to 76.5%, and the number of 30-day hospital readmissions was 9.3% versus 11.5% for the control group (Costantino, Frey, Hall, & Painter, 2013). Tang, Fujimoto, and Karliner (2014) evaluated hospital follow-up calls to 486 patients within 72 hours of discharge by nurses in a primary care practice. The results showed higher rates (60.1%) of completed hospital follow-up visits with a PCP for patients who were contacted versus 38.5% of patients who were not contacted. Furthermore, this study showed that the nurses who conducted the hospital follow-up calls were able to uncover at least one problem in 79% of the patients contacted, which may have led to poor outcomes if not addressed at the time of the call. Another study of 148,020 Medicare patients with atrial fibrillation and other chronic conditions showed a decrease in hospital readmission rates by 11-24% for patients who completed a hospital follow-up visit with a PCP within 7-14 days of discharge versus those who did not have a follow-up visit (Hubbard, Frost, Siu, Quon, & Esposito, 2014). Finally, a study by Farrell and colleagues (2015) described the implementation of a transition management program in a PCMH certified practice where care managers (RNs, social workers, and clergy) contacted 118 patients within 24-72 hours after discharge and ensured a hospital follow-up visit with a PCP was scheduled. Their interven-

tions resulted in a hospital readmission rate decrease from 17.9% to 8% for patients receiving the transition management service. These studies demonstrate that hospital follow-up calls can increase positive outcomes for patients and the healthcare system through higher completion of post-discharge PCP visits, identification of problems that may have led to poor outcomes, and decreases in hospital readmissions.

Intervention

In September 2015, a PCMH certified, urban family practice residency clinic affiliated with the University of Colorado Hospital (UCH) began contacting patients after discharge from the hospital. This TOC intervention was implemented to improve patient care and to impact the rate of 30-day hospital readmissions. TOC calls were made to patients within 48 hours of discharge, and were made by an RNCM certified in CCTM. Patients included in the TOC intervention had been hospitalized at UCH and received their primary care at the family medicine residency clinic, or were assigned as a new patient to the clinic post-discharge. Patients excluded from the intervention included those who were already seen for their hospital follow-up visit prior to the TOC call, patients with discharge diagnoses who were followed closely by a specialist post-discharge (e.g., transplant or oncology patients), post-partum patients seen for primary care at the residency clinic but who received prenatal care at a different clinic, and patients discharged with hospice or to a skilled nursing facility.

Each morning, the clinic's certified RNCM pulled a report from the electronic medical record, which listed patients discharged from UCH. The discharge summaries of patients eligible for TOC calls were reviewed prior to the call to identify specific areas needing more attention during the telephone encounter. For example, specific areas included reinforcing daily weights for a patient with a discharge diagnosis of congestive heart failure or ensuring home health infusion services were initiated for a patient discharged on IV antibiotics. In

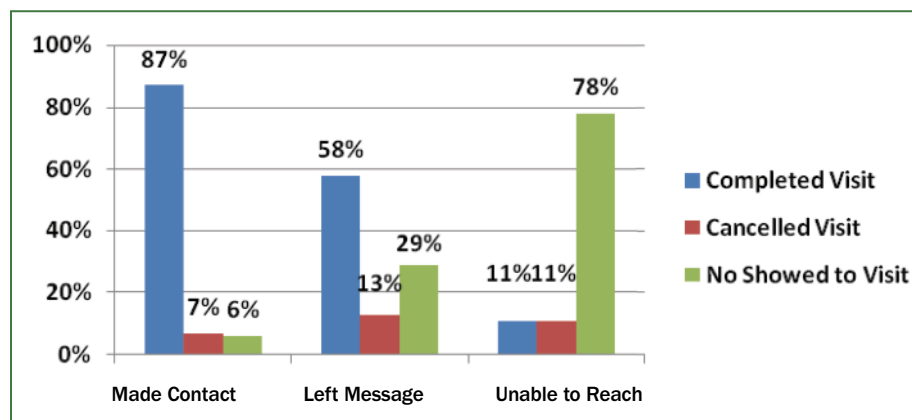
addition, the certified RNCM reviewed the after visit summary (AVS), which was a discharge report given to patients prior to leaving the hospital. The AVS provided additional information for the certified RNCM to review with the patient, further ensuring a patient-centered experience.

A scripted list of questions was asked during the TOC call. Questions addressed symptoms (new and/or "red flags"), medications, home health services, durable medical equipment, follow-up appointments, needed follow-up tests or procedures, transportation, social support, and behavioral health. In addition to these questions, an open-ended question was added to provide patients with the opportunity to identify their individual needs. The patient was asked, "What do you need most right now?" Asking this type of question has shown that patients' concerns are more likely to be addressed. For example, Heritage, Robinson, Elliott, Beckett, and Wilkes (2007) implemented a study with 20 family physicians and a total of 224 patients. The physicians' interview with the patient included asking, "Is there something else you want to address in the visit today?" A comparison of pre-visit surveys completed by the patients was compared to concerns brought up by the patients during the visit that were not listed on the pre-visit survey. Their intervention resulted in addressing 78% of patients' unmet needs. Nursing practice includes using open-ended questions as a foundation to provide holistic assessments of patients' needs. Although this study was focused on physicians, it clearly demonstrated that this specific type of

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Figure 1.
Comparison of Visits with Contact vs. Message vs. No Contact



open-ended question is an effective way to identify and address patients' immediate concerns, which is particularly important when a patient is discharged from the hospital. During each call, the patient was reminded of their hospital follow-up visit (usually scheduled by the inpatient staff prior to discharge) or a visit was scheduled, if needed. For patients who could not be reached, a message was left indicating the reason for the call, the date and time of their scheduled hospital follow-up visit (if already scheduled), and the direct contact information of the RNCM. Three attempts by telephone were made to patients who could not immediately be reached.

Once the TOC call was completed, the RNCM addressed any immediate patient needs. For example, the RNCM might have consulted with a provider if a patient was experiencing symptoms and a same-day appointment was necessary; ordered home health care, if needed; ensured medications were obtained; or arranged for transportation to hospital follow-up visits. For identified issues requiring further support, referrals were sent to other members of the multidisciplinary team. For example, a clinical pharmacist received referrals for patients diagnosed with insulin-dependent diabetes, a social worker received referrals for patients needing community resources, patients with symptoms of depression or other behavioral health issues were linked to the psychologist, and patients discharged on an anti-coagulant therapy

were referred to the anti-coagulation RN. Once the TOC call was documented in the electronic medical record, the note was routed to the PCP and other members of the multidisciplinary care team who would be involved in the patient's care.

Outcome Measures

The data gathered and analyzed for this intervention included percentages of completed post-hospital follow-up visits, 30-day all-cause hospital readmissions rates with the average LACE+ scores and length of stay of hospitalized patients, and the types and percentages of near misses. Near misses were defined as issues that, if not addressed, may have led to poor outcomes such as emergency department visits or re-hospitalizations. Baseline (pre-intervention) data was collected over an eight-month period (January 2015–August 2015) and post-intervention data was collected over a six-month period (September 2015–February 2016).

The pre- and post-intervention percentages of completed post-hospitalization follow-up visits, canceled visits, and visits not completed (no-shows) were compared. In addition, to determine the effect of the RNCM's personal contact on the patient, post-intervention percentages of hospital follow-up visits (completed, canceled, and not completed) were compared with whether the patient was contacted, only received a message, or was not able to be reached. This comparison was done to determine if there was a correlation

between completed hospital follow-up visits and whether patients could be reached.

The pre- and post-intervention 30-day all-cause readmission rates were compared. In addition to the readmission rates, the average length of stay and the average LACE+ scores were compared to determine if there were similar levels of acuity with the pre-hospitalization patient population. The LACE+ tool assists in predicting risk of early death or urgent readmissions and is automatically calculated within the electronic medical record and displayed on each patient's discharge report. Our clinic used the LACE+ Index Score, which is more comprehensive than the original LACE score because it adds values such as patient age, sex, acute diagnoses, procedures performed, and level of care while inpatient (van Walraven, Wong, & Forster, 2012). The LACE+ Index Scores are stratified as follows: 0-28 is low risk, 29-58 is medium risk, and 59-90 is high risk for adverse outcomes.

The third outcome measure for which data was collected were those findings that our clinic called "near misses." The purpose of collecting and collating this information was to share those areas where there could be improvement in the discharge process with both the inpatient and clinic clinicians.

Results

A total of 529 clinic patients were discharged during the six-month collection period and 351 were eligible for a TOC call. Of the 351 patients eligible for a TOC call, 304 were directly contacted (87%). The majority (251) of the patients confirmed hospital follow-up visits and 53 declined a hospital follow-up visit. Fifty-eight patients (11%) received up to three messages; nine (2%) were not able to be reached. The most frequent stated cause for declining a visit with the PCP was that the patient already had a follow-up appointment with a specialist.

Post-intervention results revealed that 87% of patients who were personally contacted by the certified RNCM had a completed follow-up visit, whereas only 58% who received

a message completed a follow-up visit; 11% who could not be reached came for a visit. Cancelled visit rates were 7% for patients contacted, 13% for patients who received a message, and 11% for patients not able to be reached. The no-show rates were 6% for contacted patients, 29% for patients who received a message, and 78% for patients not able to be reached (see Figure 1).

Pre- and post-intervention follow-up visits were compared. The percentage of hospital follow-up visits completed pre-intervention was 57% compared to 86% post-intervention. The rate of cancelled visits pre-intervention was 23% compared to 8% post-intervention, and the no-show rate was 8% pre-intervention compared to 6% post-intervention (see Figure 2).

The pre- and post-intervention 30-day, all-cause hospital readmission rates were compared, as well as the LACE+ Index Scores and length of stay in days, to determine if either group had a higher risk of readmission than the other. The readmission rates decreased from 25% pre-intervention to 14% post-intervention. The average LACE+ Index Scores and average length of stay in days was 54.4 and 4.4 pre-intervention and 52.5 and 4.1 post-intervention, respectively, showing that the population of patients' pre- and post-intervention had similar risks of readmissions (see Figure 3).

The "near miss" categories were identified and categorized during the TOC calls (see Table 1). Of the 304 patients contacted, 73 near misses were identified (24%). The identified categories of "near misses" included issues surrounding medications, symptoms, home health, transportation, follow-up appointments, health literacy, and behavioral health. One frequent example was that some patients couldn't get one of their medications because their prescription insurance did not cover the drug. In this situation, the RNCM either worked with the insurance company to get an authorization to cover the medication or consulted with the pharmacist about other drug options.

Figure 2.
Post-Hospitalization Follow-Up Visits

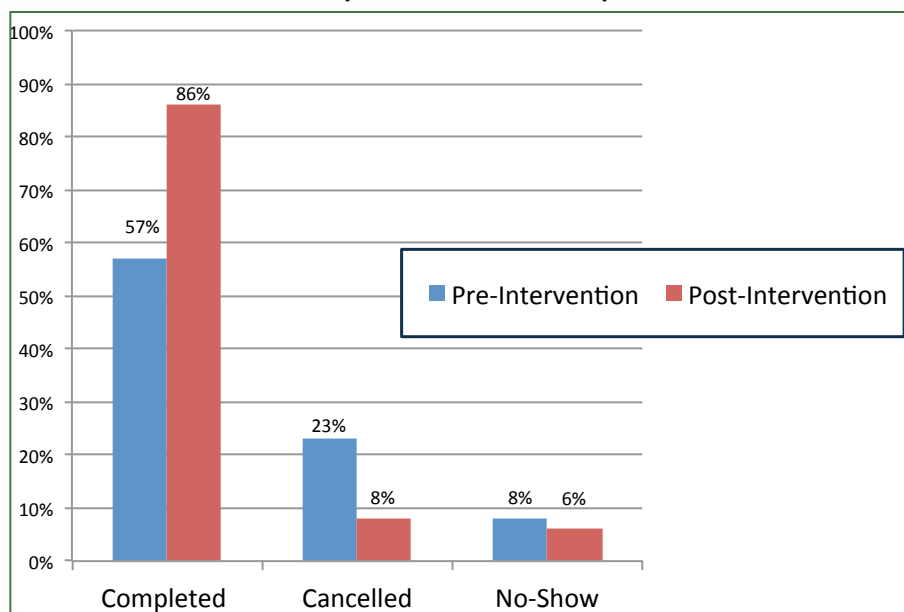
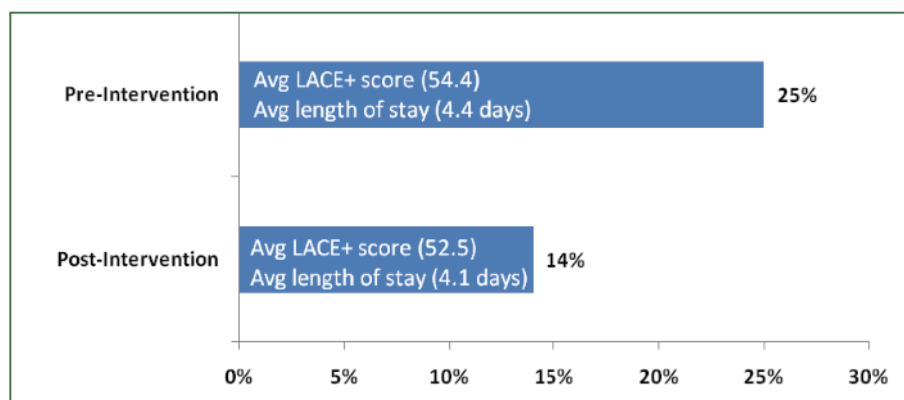


Figure 3.
30-Day All Cause Readmission Rates



Conclusions

Post-hospitalization follow-up calls to recently discharged patients is an intervention common to most evidence-based transitional care models. While it is just one step in many models, studies have shown that follow-up calls have a positive impact on completed PCP follow-up visits and reduce hospital readmissions, especially when performed by an RNCM. The personal intervention of a follow-up call by the RNCM showed favorable results, which included an increase in completed hospital follow-up visits, decreased cancelled follow-up appointments, and a decrease in the no-show rate. Patients receiving direct contact by the RNCM were much

more likely to complete hospital follow-up visits. The UCH 30-day hospital readmission rate was also reduced. Finally, near misses were identified and addressed, which may have prevented hospital readmissions or visits to the emergency department. The results of this study's intervention support the value of TOC calls and the personal contact by the clinic's certified RNCM.

The family medicine residency clinic offers an integrated, multidisciplinary team including clinical pharmacists, psychologists, and a social worker. The RN certified in CCTM has the critical thinking skills and the necessary knowledge of resources that makes him or her a valuable member

Table 1.
Near Misses Found During Calls

Near Miss Type	Near Miss Count
Medication Issue	27
Symptomatic	21
Home Health Issue	8
Transportation Issue	8
Follow-Up Appointment Issue	6
Health Literacy Issue	2
Behavioral Health Issue	1
Total	73
Total Patients Contacted	304
Near Miss Rate	24%

of the multidisciplinary care team who can provide TOC calls and other care coordination functions. The clinic's multidisciplinary care team creates a true PCMH, which ensures better outcomes with regard to transitions of care and improved overall quality of patient care.

The certified RNCM has since oriented RNCMs at two other UCH-affiliated clinics who are preparing to become certified in CCTM. They, too, have started implementing TOC calls. The goal is to have TOC calls become a standard of care in all UCH-affiliated practices. As other UCH-affiliated clinics begin to hire RNCMs, there is greater potential for improved patient quality of care and efficiencies.

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