best practice report

project BOOST: Better Outcomes for Older Adults through Safe Transitions
Background

A critical component of providing patient-centered health care that benefits the patient and the health system is ensuring care delivered in the hospital can be reinforced in the home after discharge so that readmission to the hospital can be avoided. Health reform legislation passed through the Hospital Readmissions Reduction Program of the Affordable Care Act mandates that beginning in fiscal year 2013, hospitals that are paid a set amount by Medicare for covered diagnostic and treatment services and have higher than expected readmissions rates will experience decreased Medicare payments for all Medicare discharges. A recent study of rehospitalizations among Medicare fee-for-service patients found that 18-20% of beneficiaries were readmitted within 30 days of discharge from the hospital, 6.2% were readmitted within 7 days, 33% were readmitted within 90 days, and 76% of readmissions were potentially preventable (2008). Thirty day readmission measures for heart attack, heart failure, and pneumonia which are currently part of the pay for reporting Medicare program will be monitored to evaluate performance (The Patient Protection and Affordable Care Act, Section 3025). With this heightened focus on readmissions, much effort has been given to identify ways to improve the patient's experience and understanding of his care to ensure a safe and effective discharge.

In South Carolina, PART, Preventing Avoidable Readmissions Together, is being formed to unite the efforts of the South Carolina Partnership for Health and Carolinas Center for Medical Excellence. The South Carolina Partnership for Health focuses on the intentions of three organizations (the South Carolina Hospital Association, BlueCross BlueShield of South Carolina, and Health Sciences South Carolina) to improve health care in South Carolina. Working together to improve care transitions in hospital and community-based settings, the project hopes to reduce avoidable readmissions 20% by 2014 (approximately 1700 patients per year). PART will provide communities with access to a wealth of resources to improve patient care and in turn hopefully decrease readmissions. This will include:
• Supporting communities to identify areas of improvement based on evaluation of the current process
• Implementing evidence-based practices to identify gaps within the discharge process
• Provide national and state expertise including support resources and educational opportunities to hospital staff and community partners as they collaborate to create their own customized care transitions plan
• Provide a place for communities to connect and develop transitional strategies

There are multiple models that have been published and provide foundations for improving the transition of care from the hospital through the continuum, including both Dr. Eric Coleman’s Care Transitions Program and the Transitions of Care Model developed by Dr. Mary Naylor. Both models have led the way for nationwide implementation of care transitions initiatives, including Project BOOST. Project BOOST, which stands for Better Outcomes for Older adults through Safe Transitions, is an initiative from the Society of Hospital Medicine (SHM) that is designed to improve the care of patients as they transition from the hospital to home. BOOST is one of the initiatives endorsed in South Carolina by PART for use in hospital settings and is currently being implemented at the Medical University of South Carolina. The initiative was developed by a multidisciplinary team based on findings from the Patient Safe-D (discharge) and Project RED (Re-Engineered Discharge) programs funded by the U.S. Department of Health and Human Services. The aims of Project BOOST are to:

• Reduce thirty day readmission rates for general medicine patients
• Improve patient satisfaction scores and H-CAHPS (Hospital Consumer Assessment of Healthcare Providers and Services) scores related to discharge
• Improve flow of information between hospitals, outpatient physicians, and providers
• Identify high-risk patients and target specific interventions to mitigate their risks for adverse events
• Improve patient and family preparation for discharge
There are five key components of Project BOOST—a comprehensive intervention, implementation guide, longitudinal technical assistance, the BOOST collaboration, and evaluation through the BOOST data center. Before implementation at each site, individuals whose roles and responsibilities directly affect the success of the intervention should be identified as key stakeholders in the intervention and solicited for support. Continued support from these stakeholders is critical for a successful intervention. Additionally, an institutional assessment of the care currently being provided at the site should be completed to identify areas of focus for the intervention.

The Intervention

The Project BOOST intervention was developed for use among clinicians with a focus on patient centeredness, empowerment, risk appropriateness, team orientation, and bridging to create a successful discharge. The intervention begins at hospital admission and continues throughout a patient’s hospitalization and discharge. “BOOST is focused on discharge, but managing a successful discharge includes critically evaluating your patient population, selecting the patients you need to spend the most time on, and making sure someone is taking all the necessary actions to reduce patients’ risk exposure,” said Matthew Schreiber, MD, medical director for hospitalist services at Piedmont Hospital where BOOST has been implemented since 2009.

Careful consideration should be given to risk factors patients present that put them at risk for readmission and using BOOST to tailor the intervention accordingly. Five tools are detailed in the Project BOOST toolkit for use in implementing the intervention. Those tools include (1) the Tool for Addressing Risk: a Geriatric Evaluation for Transitions (TARGET), (2) Risk Specific Interventions, (3) the Patient Preparation to Address Situations (after discharge) Successfully (PASS) transition record, (4) the Teach-Back process, and (5) Written Discharge Instructions.

The TARGET is a multidisciplinary tool designed to be used by all members of the care team as a central point of information collection. It includes four components: (1) the 8p Assessment
Tool used to stratify patients at risk for rehospitalization and identify patients to include in the intervention, (2) a risk-specific intervention plan, (3) a universal checklist of expectations for all patients being discharged from hospital to home, and (4) a General Assessment of Preparedness (GAP), which is a list of issues important to providers, patients, and their caregivers that focuses on readiness to transition out of the hospital. The 8ps scaled in the risk assessment to identify patients at risk for rehospitalization and include in the intervention are:

1. **Problem medications**-include patients in the intervention who are taking medications known to increase the likelihood of adverse events
2. **Psychological**-include patients with diagnosis or symptoms of depression
3. **Principal diagnosis**-include patients with any of the following listed as their principal diagnosis as they are at increased risk for adverse events after discharge: cancer, stroke, diabetes, COPD, or heart failure
4. **Polypharmacy**-include patients who are taking 5 or more medications
5. **Poor health literacy**-include patients who display low levels of health literacy
6. **Patient support**-include those with an absence of a formal or informal caregiver
7. **Prior hospitalizations in the last six months**-include patients in the intervention if they had unplanned hospitalizations in the six months before the current admission
8. **Palliative care**-include patients who qualify for and receive palliative services

After completing the risk-assessment at the patient’s admission to the hospital, individualized, risk-specific interventions using components of the toolkit should be implemented among patients who present as being at a higher risk for readmission.

The PASS tool (Patient Preparation to Address Situations (after discharge) Successfully), is a transition record that patients leave the hospital with, which has key aspects of their aftercare listed to be used as a reference. This is for the patient, and thus utilizes elements of health literacy
such as using large print, avoiding medical jargon, keeping sentences short and highlighting the most important elements. All members of the care team can utilize it with patients to document important information. The record can be accessed electronically or as a hard copy. Future appointments, items of concern, and important contact information are all examples of items that can be reviewed with the patient and documented.

Studies have illustrated that 40-80% of medical information is immediately forgotten and about half of the information is not remembered correctly. The teach-back process can be used in risk-specific interventions to share new information with a patient, to reinforce old knowledge, or to make changes to existing knowledge. For example, if a patient is to begin taking a new medication after discharge, a member of the inpatient care team would incorporate the teach-back process to ensure the patient understands their new medication regimen. The process would begin with the inpatient care team member explaining the new medication to the patient by identifying when and under what conditions it should be taken, and what side effects to watch out for. After this information has been shared, the patient would then be asked to explain what he has learned in his own words. If a skill has been explained, such as dressing a wound, the patient could be asked to demonstrate. In the event that existing knowledge is being reinforced, such as adherence to a patient’s current diabetes medication, the teach-back would begin with asking the patient to explain his medication regimen and refrain from reviewing the medication and side effects unless it was deemed necessary. The teach-back process would be repeated until the patient communicates or displays a clear understanding of the issue at hand. Central to successful use of the teach-back process and all components of the Project BOOST toolkit is avoiding the use of complicated medical terminology and refraining from assuming anything about the patient’s medical knowledge.

The last component of the intervention involves reinforcing written discharge instructions. Before a patient’s discharge from the hospital, written instructions that were reviewed earlier
should be provided to clearly indicate the after care plan to the patient. Ideally, follow-up appointments will be scheduled for patients before discharge and they will be encouraged to again review these instructions with a provider at that appointment.

**Evaluation and Maintenance**

As with any quality improvement project, evaluation is a critical component of Project BOOST and lays the foundation for sustaining the program. Quantitative and qualitative measures are outlined in intervention materials for sites to capture before implementation and report on each month after implementation to gauge improvement. Project BOOST tasks sites with conducting regular assessments to ensure that improvements are continual and widespread. A Return on Investment, ROI, calculator has been developed for BOOST and revealed the financial impact that the intervention is already having and can have in the future. The ROI tool takes into account hospital data, existing conditions, and the actual or expected results from the intervention. Patient satisfaction, improvements to hospital satisfaction ratings, and other qualitative measures are not currently accounted for in the tool. The ROI is calculated by dividing an estimate of the total net gain or loss to a hospital implementing BOOST by the total cost of the intervention.

Positive financial effects directly associated with BOOST include cost savings from reduced readmissions for accountable care organizations, future Medicare reimbursement penalty avoidance, patient care quality improvement, and hospital ratings improvement. Secondary effects attributed to the intervention include bed capacity improvement, ED capacity improvement, increase in payment for performance reimbursement, patient satisfaction improvement, increased staff satisfaction and reduced turnover, reduced adverse drug events, and reduce medical malpractice costs. These effects not only indicate the financial benefits of implementing BOOST, but also additional opportunities for revenue (Subramanian, 2010).
Outcomes

Currently there are 122 sites implementing Project BOOST in the U.S. and Canada and the results are promising. Early data has six sites implementing BOOST revealed a reduction in 30 day readmission rates from 14.2% to 11.2% (a 3% percent reduction) and a 21% reduction in 30 day all-cause readmission rates. Piedmont Hospital in Atlanta reported reducing the readmission rate for patients under 70 years of age to just 3.97% from 13.05% (a 9.08% reduction). Readmissions for patients older than 70 years of age were also reduced to 11.17% from 15.9% (a 4.73% reduction). SSM St. Mary’s Health Center in St. Louis, Missouri reported a 5% decrease, from 12% to 7% percent, in 30-day readmissions in their hospitalist unit. During the same time period, patient satisfaction at SSM St. Mary's reported through the H-CAHPS increased by 42% (Society of Hospital Medicine, 2010).

Additionally, Project BOOST inspired an effort at Piedmont to set up a ‘geographically designed hospitalist unit’, placing patients in close proximity to the attending hospitalist. Previously, patients were placed throughout the hospital and rounds took upwards of 45 minutes as the attending traveled the hospital. Keeping patients in close proximity to staff not only cut down on the time spent on patient rounds, but encouraged a sense of ownership from physicians for patients’ care and held them responsible for patient transitions out of the hospital, noted Schreiber. “One of the revolutions of BOOST is you have in the hospital care providers saying they’re responsible for what happens to patients, even after patients have left the hospital.” Schreiber also notes that these changes have improved physician satisfaction, stating that “Physicians haven’t gotten much satisfaction out of practicing medicine [in recent decades] with all of the reimbursement changes...[Project BOOST] re-invigorates their passion for medicine and taking care of patients” (2009).

Conclusion

Planning for discharge for self-pay patients can prove to be a challenging obstacle as the patient might have access to limited resources, thwarting the use of outpatient services and
education that could be essential to their recovery. Including enrollment in an AHSC network in the discharge plan for a self-pay patient in a BOOST intervention is not only beneficial for the patient, but also for the hospital system. The care coordination efforts network participants benefit from align directly with the aims of the Project BOOST intervention and other care transitions efforts. When they enroll in a network, participants receive additional support and education about appropriate hospital use and agree to use services wisely. Network staffs have the opportunity to work with participants and hospital staff after discharge to address needs and connect to appropriate outpatient services. Staff would review what was documented on the TARGET tool to see where referrals need to be made for specific programs and want to make sure patients at high-risk get an appointment within seven days of discharge.

Components of the BOOST intervention are also applicable to the care coordination network staff does with participants on-site. The teach-back process is a great tool to use with participants to reinforce new knowledge and ensure understanding during care coordination. The tool can be used just as it would in a hospital setting and applied to review a participant’s medication regimen, or with psychosocial needs to review a patient’s understanding of strategies for successfully addressing their needs. For example, if a participant wants to quit smoking and has reviewed strategies for quitting with staff, teach-back can be used to prompt patients to explain or demonstrate techniques they will incorporate when the desire to smoke presents. Additionally, the PASS or a similar transition record can be completed with participants to outline future appointments, items to discuss at appointments, and important contact information.

Networks interested in being a part of a Project BOOST intervention or other care transitions program should communicate their interest to individuals involved in care transitions at hospitals in their community. South Carolina Partnership for Health has provided hospitals that are willing to participate in PART with access to the tools and resources of BOOST. Hospitals will be given access to the online community, recorded webinars and the national listserv of BOOST sites.
Hospitals that would like to implement the full BOOST program, which would include access to a mentor that has experience in implementing BOOST, can do so by contracting with PART for $19,000 dollars, a discount from the $28,000 fee that SHM currently charges. Additionally, care transitions coalitions have formed in communities among key stakeholders to address the need for improvement and collaborate for funding from the Medicare Community-Based Care Transitions Program; network participation in a coalition is a great opportunity for partnership.

For more information and to access the application to become a BOOST site, visit [www.hospitalmedicine.org](http://www.hospitalmedicine.org) and click on ‘Quality Initiatives’. If you have any questions regarding the PART collaborative please feel free to contact Laura Cole at lcole@scha.org. You can also visit the PART website at [www.scha.org/PART](http://www.scha.org/PART).

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