

Success Story

Pennsylvania Agency Examines Processes, Reduces Acute Care Hospitalizations

Sun Home Health Services, a visiting nurse association serving central Pennsylvania had an acute care hospitalization (ACH) rate of 26.81 in July 2005. At the time, the national rate was 28 percent. Agency officials were determined to remain below the national average while continuing to improve quality by further reducing this number.

Sun Home Health set a target ACH rate of 25 percent as defined in their plan of action, developed by an interdisciplinary team to roll out from September 2005 to August 2006. The improvement journey began with a process of care investigation to determine agency weaknesses and strengths. A review of patients readmitted to the hospital indicated that 84.6 percent were admitted for emergent reasons, with the two most prevalent diagnoses being respiratory complications and congestive heart failure. There were also a high number of hospitalizations as a result of falls.

The interdisciplinary team identified areas for improvement, including absence of a hospitalization risk assessment, inadequate instruction on specific disease processes - including reporting signs and symptoms - and use of available telemonitoring units for patients who were at high risk for hospitalization. Sun Home Health's telemonitoring program at the time focused only on patients with a chronic heart failure (CHF) diagnosis, therefore missing many patients that were at high risk for hospitalization.

The greatest strengths identified by the agency included a 24-hour Information and Referral Center staffed by RNs (around the clock, seven days a week), and a lower hospital readmission rate within the first three weeks of service than the national average. The first three weeks after discharge is the most vulnerable period for readmissions to the hospital.

Sun Home Health Services developed a plan of action in December 2005 and four registered nurses from the Quality Improvement Department, Information and Referral Center and an outlying office were represented on the team. The team developed a list of best practices and subsequently implemented the following:

- Risk assessment form to assess patients at start of care and resumption of care
- Emergency care plan to be used as a teaching tool for patient and caregivers
- Front-loading visits and telehealth to provide additional patient contacts during the first three weeks of service. The patient contacts included nursing visits, installation of a telehomecare unit (telemonitoring) and/or scheduled telephone calls (phone monitoring) to the patient and/or caregiver.

Education of the staff was an important element of the plan. Information was shared via e-mail, and during ongoing staff meetings. Agency leaders also subsequently followed up with careful monitoring of staff. Communication improvement plans crossed all disciplines including home health aides, therapists and social workers. Leaders reported the intensive, ongoing communication proved critical to the success of the plan of action.

Sun Home Health did make revisions to the initial risk assessment during implementation of the plan. “Seventy-nine percent of the readmissions were not identified as being at high risk during the early stages of the program,” stated Director of Quality Improvement Margaret Nace, who is also a registered nurse. “We found that all areas could not be weighted the same and revisions were made, for example. We increased the weight of patients with diagnosis of CHF and for patients with a history of falls.”

In addition, the agency found that some 49 percent of patients admitted to the hospital did not call the agency first. Patients must know what to look for, such as signs of infection or other indications of changes in their health status, said Nace. “Our goal is to keep the patient at home and safe,” she added.

Educating patients on when and how to call the agency prior to going to the hospital (known as a patient emergency care plan) was also a strong focus of the improvement plan. On each visit, clinicians now remind patients about contacting the agency and review the emergency care plan to increase patient understanding of what to look for and when to call the agency.

In November 2006, Sun Home Health developed an online risk assessment with the help of a local computer company. With the new computer program, every patient is assessed at start of care and resumption of care (which is in line with recommendations mentioned previously in this article). Areas in the system worth mentioning include:

- Indication of low, medium or high risk for hospital readmission (not just indicating “at risk” or “not at risk”)
- Requirement for emergency care plan to be assessed and reviewed with patient/caregiver at every nursing visit and documented on the clinical notes
- Assessment for flu and pneumonia vaccine (including “received” and “wish to receive”)

The planning and implementation described above has resulted in an ACH rate of 25.04 percent, based on November 2006 rates. Building on their current activities, Sun Home Health Agency will continue its efforts to sustain and reduce ACH by implementing additional best practice interventions such as fall risk assessment and management of oral medications.

Data in this article was provided by Margaret Nace, Sun Home Health.



Success Stories

Home Health Agency Uses Case-Mix Analysis to Decrease Hospitalizations

A.T. Home Care, Inc. was one of 17 home health agencies to participate in the March 2005 pilot program sponsored by the Centers for Medicare & Medicaid Service (CMS). The target outcome for the pilot was to reduce acute care hospitalization in the home health setting, and A.T. Home Care, Inc. worked with the Delmarva Foundation, the Medicare Quality Improvement Organization (QIO) for Maryland and the District of Columbia, during the project.

Quality Improvement Manager Carol Elrod said that obtaining the Case Mix Analysis Summary in the pilot project in March 2005—along with an explanation on how to use the reports to lower ACH rates from the QIO—was highly beneficial. The Case Mix Analysis Summary Report compares the differences in an agency's case mix factors (including demographic, payment sources, caregivers, ADLs/IADLs, home care diagnosis groups, length of stay, etc.) among patients that were hospitalized and those that were not hospitalized. Case-mix reports are available to HHAs through the CASPER system. (Contact your state Quality Improvement Organization to learn more about the Case-Mix Analysis Summary Report.)

A.T. Home Care implemented a plan of action to reduce ACH, which included the following interventions:

- Emergency care plan
- High-risk screening tool
- Disease-specific teaching maps
- Front-loading visits and employing evidence-based practices.

In analyzing the case-mix reports to determine which patients were being hospitalized, Elrod said the agency learned those most at risk were dependent on personal care. She also learned by comparing notes with others in the pilot program that every agency had a different patient base that was most at risk for being hospitalized. "Nobody else had the same top five or the top two patients," she said. "This really is a 'drill down' into your specific case mix analysis," Elrod added.

Thanks, in part, to the use of the case-mix reports, A.T. Home Care's ACH rates went from 25.8 in 2003 to 20.5 in 2005, and 20.2 as of June 2006. As part of the ongoing analysis, Elrod also continuously adjusts for those at high risk, based on report findings. "Dependence on personal care," for example, has dropped out of the top five patient profiles for those at risk. In addition, she is taking a closer look at admissions, trying to figure out if one hospital is better or worse than another in terms of re-admitting patients. "If more of our patients from hospital 'X' go back into the hospital than those from hospital 'Y,' then we may have to conduct research to see what disease condition from this hospital is causing patients to be readmitted," Elrod said.



A.T. Home Care adjusted the high-risk screen during flu season when respiratory patients started showing up as high-risk patients (with disease management as a secondary condition). The agency subsequently added chronic diseases as a risk factor, and expanded disease management teaching maps to cover the scope of this disease process.

Elrod said the agency also expanded its diabetic care map, after agency officials noted that many of A.T. Home Care's patients admitted for treatment in a hospital have diabetes as a secondary diagnosis and, due to poor control and compliance, are readmitted for related complications.

Staff now assess all areas of diabetic management, use standardized care delivery and also use the hemoglobin A1c to assess diabetes control and compliance. If recent results aren't immediately available (e.g., with referral information), home health staff contact the patient's primary care provider. If a current report does not exist, staff request a physician order to draw an HbA1c level.

What's the key to maintaining improvements while shifting the focus on high risk areas? Elrod said the agency employs rapid cycle improvement, which is also known as Plan-Do-Study-Act (PDSA) cycles. A.T. Home Care learned about the use of PDSA while participating in the pilot program mentioned above. "Now we have the tools to run rapid cycles, and from month to month, I'll be able to see a difference," she said. "Using small groups and isolated groups study ... we will [implement] small best practices, and see if they work. In my opinion, with rapid cycling or PDSA, if you have the information and if something's not working, you have to either add or look further."

Data in this article was provided by Carol Elrod, A.T. Home Care.

Virginia Home Health Agency Employs Various Strategies to Reduce Avoidable Hospitalizations

Twin County Regional Home Health (TCRHH) is a service of Twin County Regional Hospital, a rural hospital serving a large Medicare population within a total population of approximately 60,000. The hospital is located in Galax, Virginia, and offers hospice and home health care services to as many as 195 patients each week.

The staff at TCRHH has found it beneficial to work with the state's Medicare Quality Improvement Organization (QIO), the Virginia Health Quality Center (VHQC), to improve the care provided to their patients. The agency actively participated in both the OASIS demonstration project and with OBQI projects.

Twin County's decision to participate in a reduction of Acute Care Hospitalization (ACH) project with VHQC was based more on the desire for ongoing reinforcement. Their ACH rate for November 2005 (reported January 2006) was 27.7. The agency's goal was to decrease their ACH rate by one percent. Based upon their September 2006 data (reported December 2006) Twin County's rate



was 25.1 has decreased their ACH rate by 2.6percent. which is three percent below the national average and one percent below the state average.

How did they accomplish this goal? Twin County first used the Outcome Based Quality Improvement process. A team was selected and chart audits completed. Meta Smith, agency director, said that she knew that improving any outcome, including ACH, takes a team effort. The team developed a risk assessment using QIO-provided materials which they adapted for the agency.

Staff used the case mix analysis summary report and other reports, and found that their internal audit findings mirrored the report. Patients with diagnoses of chronic obstructive pulmonary disease (COPD) and congestive heart failure (CHF) and/or requiring oxygen therapy were more likely to be hospitalized. The majority of the agency's patients returning to the hospital also did so within the first 30 days of care. Findings further revealed issues with consistent assignments of staff and a wide variation on the frequency of visits by staff.

The agency developed an organizational plan of action, identifying best practices and key strategies. The plan included:

- Risk assessment
- Front-loading visits
- Phone monitoring
- Consistent staff assignments
- Extensive staff education
- Patient education
- Emergency contact plan

A **risk assessment** is conducted at admission and resumption of care post hospitalization. If the patient is determined to be at risk, he/she is seen two to three times a week during the first three weeks (**front-loading visits**). Because telemonitoring is not available (due to financial constraints), the staff use a structured telephone assessment form to make frequent targeted follow-up calls to high-risk patients between home visits (**phone monitoring**). Staff indicate that it is not a burden to conduct additional monitoring of patients, and said that sometimes a simple phone call can make a big difference for the patient and their families.

Consistent staff assignments (sometimes called primary or permanent assignment) are defined as having the same caregivers (whether that is a registered nurse, licensed practical nurse, certified nursing assistant or therapist) consistently caring for the same patients every time they are on duty. This is an important part of the plan for patients that are identified as high-risk. High-risk patients are "flagged," which indicates the need for a consistent caregiver.

Extensive staff education was initiated and remains ongoing. Written processes and instructions were developed and each member of the team was assigned staff to review and provide feedback on the processes.



Patient education, including an **emergency contact plan**, was initiated. The plan identifies concerns for patients such as when to call the home health agency, when to go to the hospital, and symptoms of problems related to the patient diagnosis. Because of the high, recognized use of the hospital emergency room in this community, physicians are willing to call on the home health staff to visit patients who call the physician for care and/or advice. “Although we use many QIO tools, the emergency contact plan for patients is the best tool the QIO provided,” said Smith.

In addition, the agency continues its work on telephone triage, also known as teletriage. Teletriage occurs when the patient or family calls the agency with a concern or question. Because teletriage is a patient contact for which agencies can be held legally liable, certain documentation must be included in the patient record. The agency documented patient calls in the past, but not always consistently, according to Smith. The agency is now using a telephone triage documentation form to ensure compliance.

Twin County conducts monthly audits and adjusts strategies based on the audits to sustain or improve the ACH outcome. Agency staff adds additional risk areas based on patient population and demographics. More specifically, staff has added:

- Pulmonary diagnosis (improved respiratory assessment included)
- O₂ therapy of two or more liters continuously
- Non-healing wound and indwelling urinary catheter
- Inpatient facility stay or emergent care in past three months
- Dependence in medication administration
- Intractable pain

Continuing staff and patient education has also contributed to the agency’s success in reducing ACH. A fall prevention program and immunization program were instituted as part of the education process, and agency leaders reported these programs have been paramount in decreasing ACH. The agency is developing clinical paths and launching a disease management program, including promotion of patient self-management.

“The whole outcome process is dependent on accurate OASIS assessment,” said Smith. “Outcomes are only as good as the integrity of the assessment.”

Data in this article was provided by Meta Smith, Twin County Regional Home Health.