The Community Case Management Program: For 12 Years, Caring at Its Best

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One of the most complex issues currently under debate in this country is how best to provide health care for our society. Since 1995, Poudre Valley Hospital in Fort Collins, Colorado, has been effectively addressing one facet of this national crisis by providing services to a population of primarily elderly, chronically ill individuals perpetually caught in the gaps between acute and end-of-life services. Community case managers link program participants with appropriate health care services and providers that enhance physiological and functional status, identify resources that enrich quality of life, and encourage relationships and skills which foster self-efficacy. By emphasizing timely access to health-maximizing services, this program documented an impressive 81% reduction in financial losses to the organization during 2006 for emergency and inpatient services provided to a specific sample from this population. (Geriatr Nurs 2008;29:207-215)

Introduction

In 1995, the health care industry was faced with the threat of capitation for Medicare-eligible patients. In developing its response strategy, nursing administrators at Poudre Valley Hospital (PVH) investigated the development of a community program to support the chronically ill elderly population. This proposal was based on anecdotal evidence that showed higher rates of Emergency Department (ED) visits and hospital readmissions in this group. Subsequent comprehensive assessment validated the anecdotal evidence. It also revealed that the physiological status of many patients with chronic illnesses improved while under the direct care of health professionals but deteriorated after the patients transitioned to self-care. Several factors were identified as contributing to the inappropriate use of acute care services. These included inadequate or no family support systems, lack of knowledge about or inability to access community services, financial issues such as having too much money to qualify for publicly funded support services but not enough to pay for them out-of-pocket, and a history of low compliance with health recommendations for a variety of cognitive and emotional reasons. Although capitation did not materialize within the hospital’s service region, uncovering the circumstances of this chronically ill population motivated PVH to hire 2 advanced practice registered nurses and a licensed clinical social worker to develop a Community Case Management (CCM) program to address the challenges that generate gaps in care.1

Several CCM models have been identified in the literature. Wetta-Hall and colleagues2 described a combination nursing–social work case management program initially designed with a specific goal: to assist at-risk clients in finding “a PCP (primary care provider) home.” This program has been expanded to 4 hospitals and recently reported outcomes of improved client-perceived health status, in addition to a 48% decrease in emergency room usage.3 Financial risk has been cited as the impetus for several other programs. Nelson and Arnold-Powers4 reported a study of frail elderly individuals. They cited the cost of providing repetitive and often unnecessary services in a 9-physician capitated system as a catalyst for development of an adult nurse practitioner–run case management program. The staff provided additional individual support to clients and collaborated with physicians to decrease unnecessary client visits and overall costs. Similarly, Hanbury, Seyler, and Upham5 reported on a program implemented by a physician hospital organization that saw a decrease in expenses associated with client hospitalization after implementation of a program designed to identify and intervene with a group of high-risk clients. The program used nurses to
work directly with clients to manage care more closely and reported a savings of $3,924.00 per case management enrollee.

Other case management models have been developed to address the needs of specific populations. For example, Rieve reported on a community clinical case management program that initially focused on a population with the diagnoses of chronic obstructive pulmonary disease (COPD) and congestive heart failure (CHF). The program demonstrated a decrease in ED use, inpatient length of stays, and readmissions following implementation of community case management. The program has since been expanded to include use of telemedicine technology to manage more effectively a case-load of high-risk chronically ill clients. Clearly, case management interventions have documented clinically meaningful and fiscally responsible contributions in environments that are constantly changing and often fragmented.

The purpose of this article is to describe the PVH CCM program, which is now in its 12th year. This program has consistently demonstrated its effectiveness in improving outcomes and decreasing costs by focusing on one client at a time to address the complexity of an individual client’s circumstances across the continuum of care. Case managers link program participants with appropriate access to providers and services that enhance physiological status. They connect individuals to resources designed to enrich quality of life. They also encourage relationships and activities that foster self-efficacy. Because this uniquely designed program is offered to clients at no charge, case managers encounter fewer barriers and more options when addressing individual client needs. This article reviews the development, implementation, and outcomes of this thriving community case management program.

Intervention

Referral Process

Referral to the CCM program is indicated for a variety of reasons, but particularly when clients have complex medical and psychosocial needs and are without reimbursable services. Referral criteria commonly include, but are not limited to, confusion with medications or treatment plans, complex diagnoses needing education, chronic conditions that have potential for complications (e.g., CHF, COPD, diabetes), frequent ED visits or hospitalizations, poor coping skills, inadequate family or support systems, insufficient financial resources, frequent missed appointments, frequent visits for unnecessary problems, and ineligibility for home care. A medical order is not required to initiate services. Referrals are made from a diverse range of sources. Health system staff members who are concerned with the ability of potential clients to manage at home have provided the greatest number of referrals to the program over the past 7 years (24%). Hospital discharge planners and social workers involved with clients in the inpatient setting refer 23% of clients to the program. Twenty percent of referrals are received from physicians and nurses in both the inpatient and outpatient arenas. Other leading referral sources include home health care agency personnel (13%), family members (9%), and staff members from other community organizations (9%).

Admission to the CCM Program

When clients are admitted to the CCM program, case managers assess needs and develop individualized care plans focused on treating the complex challenges of chronic illness. Interventions that are designed to enhance physiological status typically include direct communication with providers, initiation of office visits as needed, assistance with medication management, and coordination of transportation. Because psychosocial and financial challenges often interfere with the clients’ ability to comply with treatment plans, case managers also focus their interventions on heightening quality of life and coping strategies to help clients manage their chronic illnesses more effectively. Case managers promote self-advocacy by educating clients about their illnesses and connecting them with greater support from family members, medical professionals, and community resources as needed.

Through regular home visits and telephone calls, case managers develop and maintain relationships with clients. These relationships provide insight regarding client progress with treatment plans and the ability to function in their home environments. This inside knowledge allows the case managers to communicate with providers and family members so that concerns can be promptly addressed and resources can
be mobilized to prevent clients from falling through the cracks in the health care system. The supportive case manager-client relationships enable real-time goals to be attained. These small goals become building blocks for realizing sustained successful outcomes and optimal client independence. Figure 1 presents a typical case study.

Discharge from CCM Program

Clients are discharged from the program when the identified goals are met and physiological status is stable. A few clients have remained in the program indefinitely because they are unable to manage their needs without support. Upon discharge, clients are encouraged to contact case managers if new needs develop requiring support.

Staff Qualifications, Training, and Roles

An advanced degree in social work or an advanced practice nursing degree as a nurse practitioner or clinical nurse specialist is required for hire. Because prescriptive authority is not used in the community case management role, no physician oversight is necessary. For community case managers to develop, coordinate, and implement a longitudinal plan of care for their customers, they rely on clinical expertise, extensive knowledge of resources, and effective communication skills.

Nurse case managers work directly with medication protocols and oversight, whereas the social worker case manager works with clients primarily to provide counseling and promote the use of stress management and coping skills. Whether case managers are nurses or social workers, they establish rapport and trust with clients by using empathy and humor and maintaining a consistent and reliable presence. By functioning as a coach, cheerleader, adviser, and advocate, they help their clients achieve goals far more complex than would be addressed by traditional health care delivery systems.

Program Funding and Materials

The program operational expenses are funded by the hospital as a community benefit, permitting community members to participate in the program at no charge. Using typical fees for geriatric care manager services that range from $85 to $200 per hour,8 the 4,920 visits with 402 clients during 2006 are services valued between $418,200 and $984,000. PVH is the only hospital in a city with a population of 140,000. It is a 235-bed, private, nonprofit acute care facility. It has been designated as a Magnet Hospital for Nursing Excellence9 since 2000, was named a Solucient Top 100 Hospital10 from 2003 through 2007, and received Health Grades Distinguished Hospital Award for Patient Safety11 from 2004 through 2007. The development of the CCM program stems from Poudre Valley Health System's strategic objective to “create a customer-focused organization with superior clinical performance and service excellence.”12 PVH is the flagship hospital for a health care system that provided $70.1 million in community benefits in 2006 and a total of $312 million from 2000 through 2006.

When the program was developed in 1995, the hospital foundation provided funding for cell phones, laptop computers for documentation, sphygmomanometers, and pulse oximetry units for each of the case managers. Currently, the hospital incurs all case manager-related expenses. In 2007, $320,353 was budgeted for salaries. An additional $22,355 was allocated for expenses including mileage reimbursement, equipment replacement, computer updates, and supplies needed when a new case manager was added to the program. PVH also provides office space for the case managers to store charts, equipment, forms, and resource materials. The hospital supplies landline voice mail capability and a location to download data from the laptop computers to the hospital mainframe computer system. An office assistant provides secretarial support and also supports the hospital discharge planning, utilization review, and social work programs. The office assistant records referral phone calls and assigns clients to case managers on a rotating basis. The financial support provided by the hospital is easily outweighed by the organizational savings realized by the program (see Results).

Documents used by the case managers include a referral form, a consent form authorizing exchange of information, and a comprehensive initial assessment form. A computerized database is used for tabulating and reporting program productivity, client scheduling, and narrative note documentation for each client visit and phone contact. In addition, access to
The client named DA was a 63 year-old female member of the Aspen Club, a resource organization at Poudre Valley Hospital for senior citizens. She had approached the Aspen Club with her request for help with laundry because she was not breathing well and getting weak, and was referred to the CCM program. During the initial visit assessment, the case manager noted a history of Chronic Obstructive Pulmonary Disease (COPD), osteoporosis, back pain, and depression. The client was minimally compliant with prescribed treatment for the COPD because she had Medicare A and B but no secondary insurance coverage. She had not seen her Primary Care Provider (PCP) for almost a year. DA had back pain, was sleeping poorly, was underutilizing several prescribed medications, and continued to smoke despite her advanced COPD. Her income was low, consisting only of her Social Security Disability payment. She lived in a poorly-accessible travel trailer. Her nutritional status was marginal due to difficulty with food preparation and lack of appetite. She had been employed as a nursing assistant for many years, but was extremely deconditioned from longstanding inactivity after retiring on social security disability due to advancing COPD. She had no significant social or spiritual support; she was widowed with two daughters, one of whom lived out of state and the other who lived nearby but had severe chronic depression and anxiety. Her only asset was a dog that she nurtured and loved.

After making a full assessment, the case manager obtained laundry and homemaking help through a local home health agency which utilizes federal funds. The following goals

Figure 1. Poudre Valley Health System Community Case Management client case study.
were then established: (a) fax communication to the PCP regarding the severity of the situation and her current medical regimen; (b) schedule an appointment with the PCP; (c) educate DA about the benefit of medications and correct dosage for treatment of depression, osteoporosis, and COPD; (d) obtain liquid oxygen for ease of portability; (e) apply for indigent status with oxygen provider; (f) enroll in the local senior transport service; (g) apply for Medicaid Home and Community Based Services in an effort to get long-term help with cooking, bathing, and medication cost (Medicaid would also provide her a secondary insurance for medical care); (h) meet with the county’s social service staff to facilitate DA’s Medicaid application; and (i) obtain PCP authorization for nebulizer medication as an alternative to inhalers to decrease co-pays until Medicaid was approved.

An appointment was made and DA saw her PCP. Treatments were adjusted. Following this, she had a period of improvement. Three months later, she was admitted to the hospital for an acute crisis where she was diagnosed with end-stage COPD. She refused to be admitted to a nursing home at that time despite strong recommendations from her physicians. She felt it was critical to have two weeks at home to deal with her dog and inform her children. She was discharged from the hospital to her home with home health care provided. The case manager facilitated a meeting with her daughters to discuss the very serious nature of her illness and her wishes regarding care and treatment. She lived at home for a brief time until a decline forced her admission to a hospice unit, where she died after a brief stay. The case manager was able to advocate for the client and honor her wishes, and maintained a relationship with her until her death.

Figure 1. (Continued)
program referral guidelines with both health professionals and lay community members.

Results

The PVH Community Case Management program currently serves an average of 400 clients per year. It has grown to employ 5 advanced practice nurses and 1 masters-prepared medical social worker. Each case manager is responsible for her own clients and collaborates with other team members as necessary. Over the past 7 years, the average caseload per full-time case manager has been 59 clients per month. Up to half of those clients are followed for more than 1 year. The average number of monthly client-related visits for a case manager working full time is 105.

Financial Benefits to Participants

Each month, community case managers track data on referrals, referral sources, visits, telephone calls, caseload totals, and discharges. They also monitor and annually report the charges and reimbursement for client ED and inpatient visits. In addition, case managers calculate the annual cost savings provided directly to clients as a result of community case management interventions. During each of the past 7 years, the case managers’ interventions have saved an average of $93,000 per year for the CCM client group, resulting in an annual savings of $233 per client. These savings were achieved by providing clients with access to hospital foundation funds, faith community outreach assistance, medical supplies and equipment, transportation, in-home help, discounted home repair services, housing referral assistance, housing and utility rebates, food supplies, and holiday adoptions. Case managers have facilitated enrollment in federal, state, and local programs, including Social Security disability, Medicaid, Medicare D, and Medicare D extra Help. The total annual savings for the client group jumped dramatically during 2006 to more than $200,000 due to assisting clients, who would not have otherwise done so, with Medicare D enrollment.

Example of Financial Benefit to Hospital

Cost savings to the hospital were demonstrated with an analysis of 37 (20% of total) new clients who enrolled in the program during the first half of 2006 with diagnoses of COPD, CHF, coronary artery disease, cerebral vascular accident, hypertension, and/or diabetes. This analysis documented that the number of ED visits for these clients dropped by 38% during the 6 months after enrollment compared with the 6 months preceding enrollment. Inpatient admissions were reduced by 63% for the same time frame. Review of these data also showed an increased reimbursement rate after clients enrolled in the program. Financial losses to the organization for providing unreimbursed ED and inpatient care to the study’s 37 clients were reduced from $853,000 for the 6 months preenrollment to $164,000 for the same length of time following enrollment. This resulted in organizational losses being cut by 81%. The CCM program demonstrated similar financial outcomes in preceding years (see Figures 2 and 3).

In addition to establishing its financial success, the PVH CCM program has also used annual client satisfaction surveys to document that the services and relationships offered by the case managers are highly valued by clients (see Table 1). An average of 59% of clients completed the surveys, which were mailed to them during the past 7 years, and 97% of customer satisfaction survey responses completed in this time period scored overall effectiveness of the program as Excellent or Good.

Discussion

The PVH CCM program has documented its success in implementing cost-effective management of geriatric individuals with 1 or more chronic illnesses. Helping clients achieve and maintain healthy outcomes by accessing therapeutic and support services in a timely fashion has dramatically offset unnecessary use of the ED, inpatient services, and other medical providers. Appropriate access to hospital services has increased the insurance reimbursement rate. Although clients with mental health illnesses (e.g., depression, bipolar) and other specific diagnoses (e.g., caregiver issues, cancer, and pain) were not included in the pre-post comparisons of ED visits and inpatient admissions, it is possible that participation in the CCM program may be at least as, or even more, cost-effective in these populations. For example, Blow and colleagues reported on a study of 1,425 veterans with serious and persistent mental illness that compares assertive community
treatment (ACT) to 3 other interventions. Case management (ACT) was found to decrease inpatient days significantly, improve outpatient utilization, and decrease overall symptoms. Because our analyses were limited to clients with the primary diagnoses of COPD, CHF, coronary artery disease, cerebral vascular accident, hypertension, and diabetes, annual program evaluations could be expanded to assess clients with mental health, cancer, and pain diagnoses, as well as clients with caregiver needs.

Finding a documentation software program that interfaces with the hospital computer system while enabling case managers to track, schedule, and document client interventions has been an ongoing challenge experienced by the PVH CCM program. The case managers have hand tallied annual outcomes analyses and productivity tracking. Because this process is cumbersome and time-consuming, we recommend that any organization planning to implement a CCM program designate a specific data support person for outcomes tracking and analysis.

There is no charge to clients for CCM services. By offering this service to the community, nursing administrators and the senior management team at PVH have demonstrated extraordinary vision in recognizing and responding to the needs of this high-risk, vulnerable population. This commitment to prioritize quality over...
revenue production resulted in the CCM program being highlighted as one of the top strengths of the organization during its 2006 and 2007 Malcolm Baldrige National Quality Award site visits. The fact that there is no charge for this service allows greater freedom for the case managers to choose from a wide variety of conventional and innovative interventions. PVH recently allocated funds to add another full-time nurse case manager for the program because of the addition of a new hospital to the health system.

Future opportunities to evaluate program outcomes include tracking behavioral changes (e.g., exercise, medication adherence, and appropriateness of calls and appointments with providers) and reporting measurable changes in client functional status. Other considerations include a review of grant opportunities to integrate telemonitoring capabilities into the program. We expect to maintain the focus of the program on serving the vulnerable, geriatric, and chronically ill individuals in our community. We anticipate continued slow growth of the program without expanding the scope of its client base so that the effectiveness of the program is not compromised.

Community case managers recognize their roles as ambassadors for Poudre Valley Health System. The relationships developed and contributions made by community case managers generate high marks in client satisfaction that benefit the organization and the community. CCM team members believe their greatest impact is made one client at a time. Rapport is built and trust is established with each interaction. Clients learn to rely on their case managers as insider experts who can help them navigate the increasingly complex challenges of the health care system. The combination of committed community case managers with the ongoing support of hospital administrators for the CCM program have enabled the long-term success of this quality program to be realized.

### Table 1. Client Satisfaction Survey Comments

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<tr>
<th>Case Manager Attributes</th>
<th>Client Satisfaction Survey Comments</th>
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<tbody>
<tr>
<td>1. Flexibility</td>
<td>1. ... very helpful, she has gone out of her way for us, don’t know what we would have done without her help.</td>
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<tr>
<td>2. Multidisciplinary knowledge</td>
<td>2. ... she gave me information on Medicaid, lawyer services, foot doctor ... she is the first one who realized I had a stroke ... she is well informed about medicine and what is necessary for patient care.</td>
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<td>3. Creativity</td>
<td>3. Found alternate way to get to appointments when my family could not do it.</td>
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<td>4. Consistent presence</td>
<td>4. Knowing she would be there for us each week was most helpful ... her help is better than medicine.</td>
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<tr>
<td>5. Empathy</td>
<td>5. She cared ... she is a very good listener.</td>
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<tr>
<td>6. Humor</td>
<td>6. She makes me laugh.</td>
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<tr>
<td>7. Coach/advisor</td>
<td>7. She gets me to do things I never would have considered doing ... she tells me what I should do.</td>
</tr>
<tr>
<td>8. Cheerleader</td>
<td>8. Most valuable thing has been reassurance and confidence ... she is cheerful ... a good friend. We would enjoy our lives a lot less if she were not there.</td>
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<tr>
<td>9. Advocate</td>
<td>9. She always calls my doctor if she is concerned.</td>
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<tr>
<td>10. Reliability</td>
<td>10. She is our support system ... lets us know she will always return our calls ... know we can call her in need</td>
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References


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