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M.O.R.E. Program: An Acuity-based Approach to Patient Care

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Introduction

Healthcare providers in various patient care settings are facing an ever-changing landscape. The emphasis to provide proficient healthcare is moving from a traditional focus of addressing patients' immediate clinical needs to that of prevention and wellness. The emergence of protocols and patient care paths reflecting current evidence-based guidelines are valuable tools in providing appropriate cost-effective care in all healthcare settings. The role of non-physicians is expanding to address our aging population allowing physicians to focus on more critical patient issues. In today's healthcare environment hospitals are developing tactics to address readmissions and reduce costs. Many home health care and durable medical equipment providers are becoming more innovative in their practice to address patient care post-discharge. Perhaps no other law in recent history has had such a dramatic impact on our healthcare system than the Patient Protection and Affordable Care Act, more commonly known as the Affordable Care Act (ACA) or Obamacare.

Readmissions & Reimbursement

An important feature of the ACA as identified by the Center for Medicare and Medicaid (CMS) is the focus on the quality aspect of providing care to patients and its effect on reimbursement.[1] Hospital readmissions are seen as an indicator of quality of care. Excessive readmissions equate to poor quality of care and need to be addressed. Reducing hospital readmissions has become the focal point of health care institutions and other patient care providers. Hospital readmissions that frequently occur have been identified as costly and many potentially avoidable. Once discharged to home many patients' care has been less than effective resulting in frequent exacerbations with trips to the emergency room or readmission to the hospital. Gone are the days of patients receiving hurried hospital discharge instructions with little or no follow-up.

Currently 1 in 5 of all Medicare patients is readmitted within 30 days with an annual cost of $17 billion.[2] The Hospital Readmission Program (HRRP)[3] is a change in the way the federal government is impacting the healthcare system by tying Medicare payments to reflect the quality of care patients receive. This program began in fiscal year 2013 (October 1, 2012) by mandating that hospitals with higher than expected readmissions will receive lower Medicare payments. Reduction of total Medicare payments is capped at 1% in 2013, 2% in 2014 and 3% in 2015. The current focus is on patients with a primary admitting diagnosis of pneumonia, acute myocardial infarction and heart failure that are considered to have excessive readmissions.

Starting in 2015, excessive readmissions for patients with Chronic Obstructive Pulmonary Disease (COPD) along with angioplasty, CABG and vascular disease will result in reduce reimbursement for all Medicare payments. An emphasis on addressing hospital readmissions for COPD patients is a focus of numerous healthcare providers' particularly respiratory therapists in all healthcare settings. COPD has been identified as the third leading cause of death in the US[4] and the fourth leading cause of readmissions.[5] Medicare reports that beneficiaries with COPD have a 22.6% readmission rate within 30 days after hospital discharge.

Addressing readmission

In order to address the readmission issue various strategies have been developed. Many hospitals are creating patient care teams with members from various health care disciplines to supply input with a focus on providing comprehensive or coordinated care.[6] This care starts during the hospital admission and carries over to post discharge of the patient. There is emphasis on patient education, medication adherence, self care, nutrition and routine follow-up with physicians.

Another strategy is the development of chronic disease management programs which has a reported significant reduction in both length of stay and total hospitalization. Some hospitals may send care-givers to patient homes or partner with a home care or durable medical equipment company to ensure a continuation of optimal care in the home. For comprehensive care to be successful there must be some form of interaction between patients and healthcare professionals in the home environment. It is essential for patients living with a chronic disease that care in the home is a continuation of the appropriate care they received while in the hospital.

Healthcare providers in the home

Many home care and durable medical equipment companies employ healthcare professionals to care for patients. The home healthcare professional provides an interface between the patient and physician. They evaluate the patient's understanding of their disease state; reinforce education of equipment, medications, nutrition, evaluate clinical needs, and perform a home assessment which is crucial in terms of safety and well-

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Table 1. Patients Enrolled in the M.O.R.E. Program by Diagnosis and Acuity Level

Patients Categorized by Diagnosis	Patient Acuity Level
COPD = 519 (23%)	High = 59 (35)
OSA = 1327 (60%)	Medium = 1210 (54%)
CHF = 143 (7%)	Low = 956 (43%)
Hypoxemia = 93 (3%)	
Miscellaneous = 143 (7%)	

Table 2. Acuity Levels of COPD and OSA Patients

COPD Patients	OSA Patients
High = 27 (5%)	High = 20 (2%)
Medium = 410 (79%)	Medium = 509 (38%)
Low = 16%)	Low = 798 (60%)

Table 3. Respiratory Modalities by Acuity Level

Oxygen Therapy
High = 35 (5%)
Medium = 680 (85%)
Low = 141 (10%)
PAP Therapy
High = 23 (1%)
Medium = 503 (37%)
Low = 753 (62%)
PAP Therapy and Oxygen Therapy
High = 12 (11%)
Medium = 74 (69%)
Low = 22 (20%)

Table 4. Key Follow-Up Survey Results

Are you experiencing any shortness of breath while using your oxygen?
Yes, during exertion (respiratory therapist alert) = 5 (3%)
Yes, during rest (respiratory therapist alert) = 0
Yes, while sleeping (respiratory therapist alert) = 1 (0.6%)
No = 160 (96.4%)
Are you using your oxygen at the prescribed setting?
Yes = 165 (99.4%)
No (respiratory therapist alert) = 1 (0.6%)
Are you using your CPAP equipment more than 4 hours every night?
Yes = 59 (98.3%)
No (respiratory therapist alert) = 1 (1.7%)
Have you been to the emergency room or been readmitted to the hospital in the last 30 days?
Yes, the E.R. = 2 (0.9%)
Yes, the hospital = 11 (4.8%)
No = 214 (94.3%)
Do you have an upcoming follow-up appointment with your prescribing physician?
Yes = 226 (99.6%)
No (Encourage the patient to keep their physician involved in their therapy, health, and wellness) = 1 (0.4%)

designing the home to maximize the activities of daily living. In recent years there have been reported successful efforts to improve patients' respiratory care in the home by various hospital-based home care or durable medical equipment providers. Programs such as Discharge, Assessment & Summary @ Home (D.A.S.H.) at Klingensmith Healthcare in Pennsylvania[7] and Roberts Home Medical in Maryland are demonstrating that respiratory therapists interaction in the home improve patient outcomes while reducing emergency room visits and hospital readmissions.[8]

The M.O.R.E. Program

Acuity-based approach

The M.O.R.E. Program (Measuring Outcomes through Respiratory Evaluation) developed by the Medical Service Company, Cleveland, Ohio provides a unique approach to address patient care in the home. The goal of this program is to provide a focus for all patients receiving respiratory therapy based on their level of acuity. The program identifies risk factors while treating respiratory conditions and monitoring patient outcomes. This approach is a way to concentrate on the components of comprehensive patient care while reducing hospital readmissions and costly emergency room visits. The strategy of the program allows for more interaction and follow-up with patients and a focus of providing feedback to physicians with up to date clinical information and patient issues. This is extremely important as resources and reimbursement continues to decline not only in the hospital but also for home care and durable medical equipment companies.

The M.O.R.E. Program requires the respiratory therapist taking care of the patient to ask a series of clinical questions ranging from smoking history to patient travel requirements. These questions are designed to address patient care in the home environment. Each of these questions has a point value associated with a level of severity. The therapist utilizes a scoring system which in turn establishes an overall acuity level of the patient. There are three acuity levels, high, moderate and low. Therapist visits and follow-up calls are formulated based on the patient's level of illness. Patients with higher acuity scores require more visits and follow ups than those with lower acuity scores. By focusing on patients that have greater clinical requirements it maximizes the therapist patient interface which in turn may produce enhanced patient outcomes.

Starting in September 2012 all patients receiving any respiratory therapy modality in the home were enrolled in the M.O.R.E. Program. Patient information was collected and identified by sex, age, diagnosis, acuity level, and modality, effectiveness of current therapy, potential for additional physician evaluation, emergency room visits and hospital readmissions. Currently there are 2225 patients enrolled in the program. Of these 23% have a diagnosis of COPD, 60% obstructive sleep apnea (OSA), 7% congestive heart failure (CHF), 3% hypoxemia and 7% make up a miscellaneous category. A review of level of acuity shows that 57% of patients were classified as high or moderate and 43% were in the low category (Table 1).

COPD & OSA Patients

COPD and OSA patients with a primary or secondary diagnosis comprise 83% of the total population enrolled in the M.O.R.E. Program. The majority of respiratory therapy services in the home are devoted to these two patient groups. By applying the strategy of the M.O.R.E. Program to these two groups, more frequent care is afforded to patients that exhibit a higher level of severity. This allocation of care allows resources to be utilized in an effective manner. A review of the acuity levels of COPD and OSA patients is shown in Table 2. Another category is respiratory

modalities that patients are receiving to determine trends of acuity by modality (Table 3). It may be possible to establish more efficiency in staffing and equipment requirements by looking at the acuity mix of patients on different respiratory modalities. We found that the majority of patients receiving PAP therapy fall into the least acute group (62%). Conversely 90% of the patients receiving oxygen therapy had a high or moderate level of severity. Eighty per cent of patients receiving a combination of PAP and oxygen therapy were in the high and moderate severity categories. These trends may allow for utilization of resources and equipment in the most efficient manner.

Better assessment, lesser exacerbations

An important element of the M.O.R.E. Program is a feedback loop from patients to their physicians by respiratory therapists asking significant clinical questions and providing the information to the physician. During the initial assessment by the respiratory therapist it was found that 11.8% of patients not receiving oxygen therapy in the home said they were short of breath during mild or moderate exercise. A review of this group's acuity showed that 88.3% were in the high or moderate level ($p<0.016$). Of the patient's currently receiving oxygen therapy 4.8% were falling asleep more frequently or occasionally falling asleep during waking hours. The physician is afforded the opportunity to pursue additional evaluation if he or she considers it to be appropriate, with the understanding that these are subjective patient concerns. The initial appraisals reveal that 7.1% of current patients are active smokers. Reinforcement of smoking cessation is performed by the respiratory therapist and the physician is made aware that the patient is currently smoking. Identification of the above issues may be beneficial in preventing exacerbations resulting in emergency room visits or hospital admissions. A follow-up to this issue will be to see the number of patients receiving additional testing and if their results reveal the need for supplementary therapy.

Surveying

A key component of the M.O.R.E. Program is a follow-up survey in which patients receive a phone call following 30 days after their initial respiratory modality set-up. The purpose of the survey is to identify the effectiveness of the program. The review allows Medical Service Company personnel to follow-up with patients and identifies any clinical, technical or educational issues. A review of 227 patient follow-up surveys was done to determine the value of the program. A series of key questions in categories having to do with symptoms, understanding of equipment, activities of daily living, follow-up physician appointments, and recent emergency room visits or hospital admissions. If a patient is having any problems their respiratory therapist is notified and immediately follows-up. This has proven to be an effective strategy in addressing any potential issues that may lead to the deterioration of the patient's condition. A focal point of the survey shows that emergency room visits were at 0.9% of patients and 4.9% of patients were readmitted to the hospital ($p<0.001$). Of those patients readmitted 46% of had a primary respiratory diagnosis. Table 5 shows the results of key follow-up questions.

Results

The M.O.R.E. Program provides a distinct approach to treating patients receiving respiratory care in the home. It provides a way to treat patients more frequently that exhibit a high degree of illness. The program allows for assessment, increased patient contact and information flow to the physician. While there is more than one approach to successfully treating patients we feel this method addresses one of the more effective means of providing respiratory care in the home in a time of limited resources and reimbursement.

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