

Cost Effective COPD Disease Management

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The Patient Protection and Affordable Care Act (PPACA), or Obamacare, has caused unprecedented controversy and extreme polarization of opinions. However, the one thing that everyone seems to be able to agree on is that our nation's healthcare system, left unchecked, has been on a path to disaster. National healthcare spending has been growing at a rate more than twice the growth of our gross domestic product (GDP). Fortunately, for the last several years, the growth in healthcare spending has dropped to a level matching the growth in GDP. But we're not out of the woods, not by a long shot. Left unchecked, healthcare expenditures will swell as a very significant proportion of the American population, the baby-boomer generation, enters into retirement and onto the Medicare rolls. Obviously if we want to have a sustainable system we have to find ways to control costs. We need to use multiple strategies to improve efficiency and rein in costs, all without sacrificing quality. One such strategy is to reduce readmissions.

Readmissions have been targeted both because they are expensive and they are perceived as a poor outcome, or in other words, as poor quality. In an analysis of all Medicare claims in 2003-2004 one study¹ identified that 19.6% of patients (almost 1 out of 5) are readmitted within 30-days of discharge with an annual cost to tax payers of \$15-17billion a year^{1,2}. Medicare has focused its attention and thus the attention of hospitals, on 6 diagnoses, CHF, acute MI and pneumonia in 2012 and COPD, along with knee and hip arthroplasty in 2015. Collectively these 6 diagnoses account for almost 30% of readmissions and are being used by Medicare as a sort of focused audit of quality. Hospitals are being held accountable for the readmission within 30-days of patients that were originally hospitalized (index hospitalization) with any of these diagnoses. The readmission diagnosis does not need to be the same as that of the index hospitalization, nor does the patient need to be admitted to the same hospital. Hospitals that fail to achieve a pre-determined, risk-adjusted readmission rate are penalized on all Medicare admissions the following year. 2012 was the first year the penalty was enforced and it was capped at 1% of reimbursement. This year the maximum penalty will double to 2% and in 2013 the penalty is slated to rise to 2.5%, but may be increased to 3%. Currently 44.5%³ of the 4985⁴ hospitals in the US are being penalized for excessive readmissions, with 307 hospitals receiving the maximum penalty.

Of the 6 diagnoses included in the readmission program the most challenging will be COPD. Most COPD is a direct result of cigarette smoking⁵, and according to a Center for Disease Control and Prevention (CDC) report⁶ cigarette smoking is associated with lower education and income levels. The progressive nature of COPD results in the severest cases, those cases with the highest probability for readmission, occurring when a patient is in their 70s and 80s⁷. Additionally there has been a growing body of evidence that COPD is a major contributor to cognitive dysfunction^{8, 9, 10, 11}. So the expectation is that hospitals will be able, in the brief 4-5 days that a COPD patient is hospitalized and recovering from an acute

exacerbation, overcome all these behavioral, socio-economic, cognitive and age related obstacles and change the attitude, understanding and living conditions of these patients. An unrealistic expectation at best.

What hospitals can hope to accomplish is to establish a strategy for each patient based on their specific needs. Then, based on that needs assessment, identify what can be accomplished in-house and what needs to be referred out to home health agencies and durable medical equipment providers. During the acute stay efforts should be made to recruit patients to participate in a pulmonary rehab program. Although it is unclear as to the effectiveness of these programs to reduce readmissions^{12,13}, they are a good vehicle for patient education, smoking cessation, promotion of physical activity and medication monitoring. There are also other non-disease specific factors that have been shown to significantly contribute to the potential for readmission¹⁴. These factors should also be explored and, where necessary, an action plan established.

1. Patients that are not seen by their primary care physician within 2-weeks of discharge are 10-times more likely to be readmitted within 30-days¹⁵. Hospitals would be well served to establish a follow up appointment for the patient rather than to leave that action to the patient to complete. Many hospitals are now making this appointment before discharge as a part of their standard of care. Further, many are calling the patient 24-hours prior to the appointment as a reminder and to ensure that the patient has a way of getting there.
2. Understanding the patient's financial status. Most COPD patients receive Social Security and live on a fixed income. These patients may not have adequate resources to afford all the medications that are typically prescribed upon discharge. Or, if they spend their limited resources at the pharmacy they may not be able to afford adequate nutrition. Either or both of these factors can easily contribute to a re-exacerbation and return trip to the hospital. Knowing the presence of these limitations in advance allows for proactive actions. Some hospitals are taking the action of providing patients with a 30-day supply of medications upon discharge. Food banks and other community resources such as Meals-on-Wheels and senior resource centers are also being utilized to help meet patients basic nutritional needs.
3. Transportation is an often overlooked factor. Yet without it there's no way to the pharmacy, grocery store or physician's office. Income and age are factors that can influence whether someone has a car or can afford to use public transportation. When transportation is in doubt, cab vouchers and senior transport services can be used.
4. Patient education should begin in the hospital, but we need to be mindful that during the acute phase patient retention may be limited.

Patient education has been repeatedly shown to improve outcomes and reduce readmissions^{16,17, 18}. However effectively educating the COPD patient is fraught with challenges. Various degrees of hospital psychosis and disassociation are often encountered in the elderly. Cognitive impairment is quite common in COPD, with a recent meta-analysis reporting rates of 90% and higher¹⁹. Add to that the deficits in hearing and vision that accompany aging and effective education becomes a difficult task. But it can be accomplished. Clearly, patience is essential. Education should be focused into short sessions lasting 5-10 minutes. Turn off the TV and turn on the lights. Look at the patient so they can see your lips, speak up and use simple to understand language. Don't go too deep; rather, tell them what they need to know and why it's important. Then have them tell you

what you just told them. Focus each session on a key topic, medications, oxygen (if needed), diet, the importance of activity, dealing with shortness of breath, etc. Ideally these sessions should include supportive written materials and be provided by a therapist that has an interest in patient education, not necessarily the practitioner that is assigned to the floor. We're not all equal and we're not all good teachers. But we all know the value of a good teacher.

It's essential that education sessions don't end when the patient is discharged. Myriad factors limit patient retention during an acute hospitalization. Critical to successfully improving outcomes and reducing readmissions is to continue the patient education process. Pulmonary rehabilitation sessions, home health visits and respiratory therapists employed by durable medical equipment companies can all continue the effort started in the hospital. Ideally the messages from all these various sources will be delivered in a similar fashion and contain the same message. Just as in advertising, when the message is repeatedly delivered it gains strength and relevance²⁰.

The pendulum has swung and the rules of the healthcare game have changed. The ACA has mandated that quality become a central factor during hospitalizations and holds each of us accountable for the care we provide. Readmissions are the yardstick by which the quality of care offered by hospitals will be measured. There are many factors that can influence readmissions including patient understanding and empowerment. As respiratory care practitioners we are ideally positioned to educate patients and make significant contributions to reduce readmissions and to improve the quality of our patients' lives.

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