INSPIRED program reduces readmissions among COPD patients at The Ottawa Hospital

THE CHALLENGE

Across Canada, an estimated 800,000 Canadians live with chronic obstructive pulmonary disease (COPD), a progressive disease characterized by debilitating breathlessness. This population is among the highest users of hospital care. Of all chronic diseases, COPD is the number one reason for hospitalizations, accounting for the largest number of return visits to emergency departments (EDs) and the highest volume of hospital readmissions. Often, patients end up seeking care in the ED to manage their chronic illnesses because more appropriate care isn’t available in the community. The situation is expected to worsen as one-in-four Canadians is set to develop the disease in their lifetime.

In 2014, the Canadian Foundation for Healthcare Improvement partnered with Boehringer Ingelheim (Canada) Ltd. on INSPIRED Approaches to COPD, a pan-Canadian quality improvement collaborative that provided funding, training, coaching and resources for a network of 19 interprofessional teams from healthcare organization across Canada. Through this collaborative, the teams adapted, adopted and evaluated the INSPIRED COPD Outreach Program™, a coordinated, proactive approach to improving care for people with COPD and supporting their caregivers.

The hospital was aware that its cost for treating COPD was higher than for any other chronic disease and was concerned that its 30-day readmission rate for COPD patients stood at 10 percent.

As one of the largest academic teaching facilities in the country, The Ottawa Hospital admits a high volume of patients with COPD and so in 2014 it joined the INSPIRED collaborative. Before it joined the collaborative, the hospital was aware that its cost for treating COPD was higher than for any other chronic disease and was concerned that its 30-day readmission rate for COPD patients stood at 10 percent.

The INSPIRED COPD Outreach Program™ was developed by respirologist Dr. Graeme Rocker and his team at Capital Health (now Nova Scotia Health Authority) in Halifax. CFHI set out to spread this comprehensive approach to COPD care across Canada.

THE SOLUTION

Teams participating in the INSPIRED collaborative identified patients who visited the ED or were hospitalized with advanced COPD, and then invited them into a supportive program that provided them with: a written action plan for managing their disease; a phone call after they were
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discharged home; at-home self-management education and psychosocial support; and advance care planning when needed. Patients in the program were also given a telephone number to call for support.

Supported by the CFHI collaborative, the team at the hospital set about creating a COPD Outreach Program, based on INSPIRED, with a target of enrolling 100 COPD patients in the first 12 months and reducing their readmission rate by 25 percent, primarily by educating and empowering patients and their families.

The team consisted of: Wendy Laframboise, Nurse Practitioner, Certified Respiratory Educator and Program Lead; Dr. Jackie Sandoz, Respiriologist and Physician Lead; Sherry Daigle, Clinical Manager and Administrative Lead; Dr. Peter Henderson, Clinical Psychologist and Evaluation Lead; Debbie Shalla Registered Nurse and Certified Respiratory Educator, and DorothyAnn Curran, Research Associate. The team developed the COPD Outreach Program in collaboration with hospital and community stakeholders, including the Champlain Local Health Integration Network.

The Ottawa Hospital COPD Outreach team began work to develop procedures in the summer of 2014 and to build support for the initiative with the hospital’s senior medical leadership, administration, and staff.

With her colleagues at the Champlain Lung Health Network, Laframboise created an inventory of community services for people with COPD and posted it as a “lung health tool kit” (on the website champlainhealthline.ca). The inventory was created to address the fact that hospital staff had not been aware of, or linked into, community resources for people with COPD, and so patients routinely left the hospital without referrals. The reality is that too often key players in the healthcare system – the hospital, primary care providers, home care providers, community health centres and pulmonary rehabilitation programs – operate independently, to the detriment of patient care.

The first patients were enrolled in mid-November 2014, referred to the team by respirology, medicine, and family medicine at both the Civic and General Campuses of the hospital. Most patients enrolled in the cohort had also been admitted to the hospital in the past year with an acute exacerbation of COPD (AECOPD) and in 2014, the 30-day readmission rate for these patients was 14 percent, which was higher than the hospital average for COPD.

About half the cohort had pulmonary function tests that confirmed their COPD diagnosis. The team accepted other confirmatory imaging, such as a CT scan that revealed emphysema, but if there was no confirmation a bedside spirometry test was requested. To be enrolled, patients had to be living in the community within 25 km of the hospital. Those living in a retirement home or long term care facility were not eligible.

Patients in the cohort received a post-discharge phone call, by a registered nurse with the outreach team, within 24 to 48 hours, as well as a monthly phone follow-up for three months, and again at 12 months. Patients also had access to a weekday information line answered by a member of the outreach team.

The readmission rate for patients in the cohort dropped to 4 percent from 14 percent a year earlier.

Team leader Laframboise made a home visit within one or two weeks of discharge to provide patients (and their family) with education about COPD and a written action plan. Inhaler technique was reviewed and patients were offered smoking cessation counselling and referral, as appropriate, to pulmonary rehab, community maintenance program or palliative care. The team faxed their in-hospital assessment, and telephone and in-home visit documentation to the primary care provider as required, including recommendations for timely follow-up and vaccines.

THE RESULTS

By early October, 2015, 87 patients had been enrolled in the program. The average age was 73. The team was still following 71 of the 87 patients; the other 16 had variously died, moved to a long term care facility, or dropped out of the program.

The readmission rate for patients in the cohort dropped to 4 percent from 14 percent a year earlier. Visits to the emergency department fell 62 percent and readmissions dropped by 45 percent.
Sue Johnson, 67, was diagnosed with COPD in the summer of 2015 and, because of a flare up, ended up in The Ottawa Hospital in February 2016. “I knew nothing about this disease. I didn’t know what to watch for,” she says. Enrolled in the program she learned what to watch out for, she got on the right medication and she began an exercise program. Without the program, she says she would be floundering. “Having the knowledge and trying to stay active as long as I can is keeping me independent.”

A number of resources were created, including a document explaining the program, a patient questionnaire booklet, a home visit package and widely-shared online documentation templates.

SUSTAINABILITY AND SPREAD

The program has been extended with one-time funding from the Champlain LHIN and reallocation of resources within the hospital has meant the team leader’s position is now permanent.

As of September, 2016, 153 patients have been enrolled in the program.

Within the hospital, the respirology division has developed a comprehensive care pathway for patients admitted with AECOPD that clearly defines the medication that is appropriate for the patient’s stage of COPD disease and provides a clear pathway to improve the transition from hospital to home. Instead of using a “one-size-fits-all” approach, this care pathway attempts to segment the COPD population so that the hospital’s resources are used systematically for the most appropriate patients.

As well, the team leader met with the chief of pharmacy to identify gaps in discharge medications and the chief of pharmacy is putting systems in place to identify these gaps.

Laframboise has made presentations to in-hospital staff, retirement home staff and staff at community care access centres (CCACs) and family health teams. Primary care providers in the community are more aware of COPD education and are completing action plans with their patients.

In the future, the team would like to be able to enrol COPD patients directly from the emergency department (not just those who have been admitted to hospital). The team is also exploring telehomecare opportunities that would improve the effectiveness and efficiency of the program by reaching more patients.