

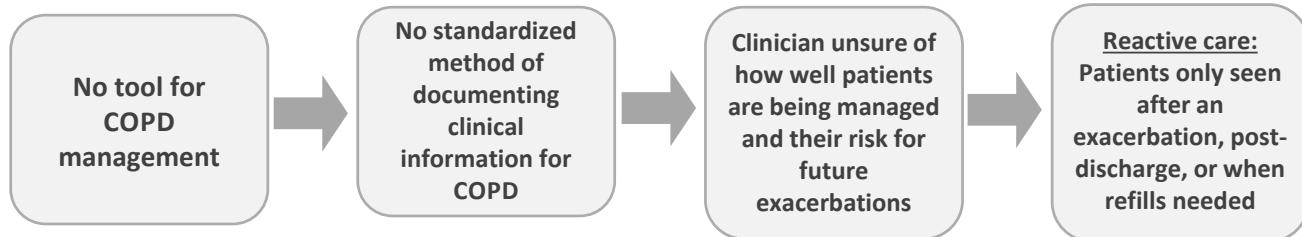
A case study on improving Chronic Obstructive Pulmonary Disease management through an **EMR decision support tool**

The eHealth Centre of Excellence has created a Chronic Obstructive Pulmonary Disease (COPD) EMR decision support tool that guides clinicians through application of best practices and consistent documentation for COPD, supporting proactive care through informed decision making and appropriate steps to improve patient's disease trajectory.

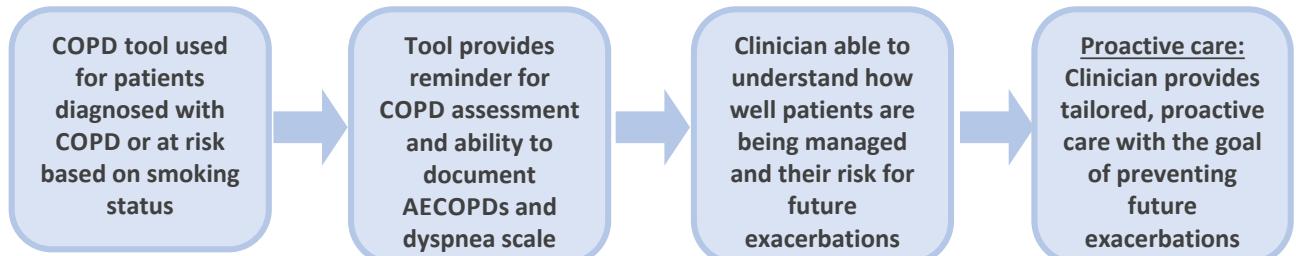
There are over 1.5 million Canadians who have been diagnosed with Chronic Obstructive Pulmonary Disease (COPD), while as many as 1.6 million may remain undiagnosed (CTS, 2010). COPD accounts for the highest rate of hospital admission among major chronic illnesses in Canada (CTS, 2010). Appropriate diagnosis and management of the condition is key in reducing COPD hospitalizations. An important part of COPD management is the documentation of clinical information on factors such as the number of acute exacerbations of COPD (AECOPD) per year and where a patient falls on the dyspnea scale, which helps a clinician determine how well the patient's COPD is being managed and their risk for future exacerbations (Müllerova et al., 2015).

In 2016, the eHealth Centre of Excellence's COPD form (see box, below) was adopted by the Guelph Family Health Team as an element of a quality improvement initiative to reduce readmissions for COPD. The figure below illustrates the care process before and after COPD tool adoption.

Before COPD Tool Adoption: Reactive Care



After COPD Tool Adoption: Proactive Care



"Improving documentation is the first step towards understanding how well or sick my patients are, and therefore what management is required to improve their health. By using this tool, I have had more conversations with patients regarding possible COPD, which has led to more testing to confirm diagnosis and smoking cessation referrals."

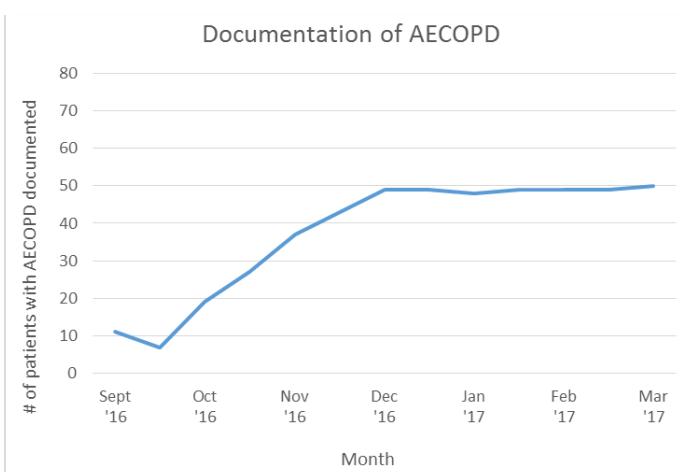
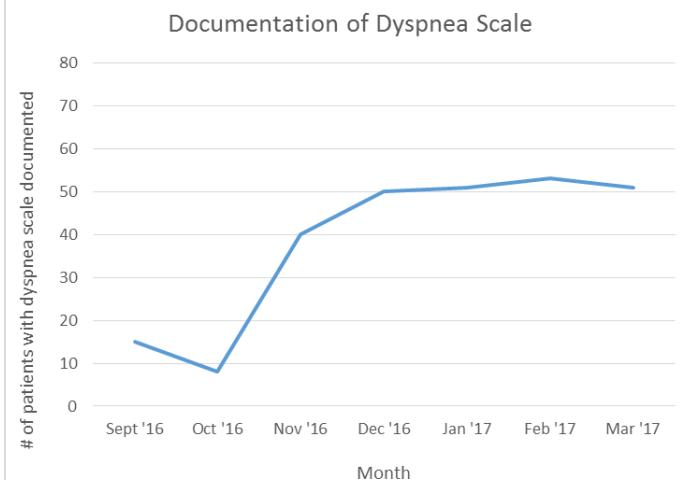
- Dr. Joan Mackenzie Chan, MD CCFP

At the clinics within the Guelph Family Health Team who opted to use the COPD tool, over 3.5 times more COPD patients have AECOPD documentation and almost 2.5 times more COPD patients have dyspnea scale documentation, compared to when the tool started to be used (see graphs, right).

Dr. Chan used the tool for 88% of her diagnosed COPD patients. She found that having these clinical values documented in a consistent way not only improved the organization of COPD-related patient information, but it also enabled proactive management of the patient's condition.

Improving documentation has enabled Dr. Chan to better understand how well or sick her patients are.

She can then make better informed decisions as to what type of management is required to improve their health. The experience of implementing the COPD tool prompted Dr. Chan's clinic to adopt a new workflow to enhance patient care; a primary care nurse clinician is now a part of each COPD visit, with a focus on patient education for self-management.



If you have any questions or would like further information on this case study, contact communications@ehealthce.ca.

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Works Cited:

1. Canadian Thoracic Society. (2010). The Human and Economic Burden of COPD. Retrieved from: <http://www.respiratoryguidelines.ca/the-human-and-economic-burden-of-copd-a-leading-cause-of-hospital-admission-in-canada>
2. Müllerova, H., Maselli, D. J., Locantore, N., Vestbo, J., Hurst, J. R., Wedzicha, J. A., ... Wallack, R. Z. (2015). Hospitalized exacerbations of COPD: Risk factors and outcomes in the ECLIPSE cohort. *Chest*, 147(4), 999-1007. DOI: 10.1378/chest.14-0655