

IMPROVING THE RATE OF PEAK EXPIRATORY FLOW MEASUREMENTS (PEFR) IN A GENERAL PRACTICE

To the editor: The importance of measuring PEFR in the management of patients with asthma is widely recognized in consensus statements and guidelines.¹ PEFR measurement is affordable, simple to measure and impacts positively on morbidity and mortality^{3,4}. Family practitioners have been shown to not optimally assess therapy and outcomes in asthma care and in particular to not use PEF meters.³ Although some studies suggest that use of and acceptance of PEF meters has improved in family practice the availability of PEF meters after hours is still a problem.⁵ As a result of this, the author wanted to find out objectively what was happening in his own practice, and if there was a need to improve the use and rate of peak flow measurements.

A Quality Improvement (QI) cycle was used to assess and improve the quality of PEFR measurements. QI cycles have been described previously by Brown, et al², Coleman and Endsley⁶ and Couper⁷. The practice team consisting of the author and 2 practice nurses were all involved in the QI cycle. The team initially set target standards as follows:

- 80% of asthmatic patients attending the practice should have their PEFR measured
- All members of the practice team should be able to accurately measure PEFR

Two cycles of 6-months each were completed using the following steps:

1. Set or revise target standards
2. Gather data from medical records / computer
3. Assess current practice relative to target standards
4. Plan and implement changes to improve quality

In the first cycle only 22.6% of patients were found to have their PEFR assessed which was well below the target standard of 80%. Plans were made to train the practice nurses in measuring PEFR and to measure this routinely prior to seeing the doctor. Following this the rate of PEF measurement was re-assessed and found to be 62.8%. Although this was a significant improvement it was still below the target standard. Plans were made to highlight the record cards of all asthma patients with a yellow sticker to make it easier for the nurses to identify asthmatics. Following this re-assessment found a PEF measurement rate of 82.4%.

Initially the process of measuring PEFR from all patients with asthma was new and all members had difficulty in explaining why it must be done even before seeing the doctor. Patients however got used to the process with time and began reminding staff to measure their peak flows. Labeling record cards for all asthma patient of the

practice had an important secondary benefit in that all these patients can now be easily identified.

One of the reasons for not attaining 100% PEFR measurements was that asthmatic patients did not come to the practice on a specified day for their asthmatic medication. They also come to the practice with other problems and measuring PEFR on these visits maybe inappropriate or the patients were unwilling to have their PEFR measured on these visits.

There was satisfaction that we had improved the rate. We are now considering coding all the record cards of patients with chronic diseases such as hypertension, diabetes and ischaemic heart diseases.

A surprising event that took place during the year of our QI cycles was an overall increase in new asthma patients coming to the practice. These patients commented that they had heard from others that we were carrying out a study and the practice was measuring their PEFR every time they came to the practice. They felt they were now getting specialist type of care for their asthma. The patient numbers improved at the practice. Some patients have also decided to do their own PEFR measurements at home.

Quality improvement is now becoming part of a routine process at this medical practice. All members of the staff are actively involved in these processes. We are continually examining the structures and processes at the practice and striving to make them more effective. These quality improvement initiatives improve patient care and satisfaction at the practice. PEFR measurements are now routine at the practice. At the same time we are working to decrease irritation, decrease work and increase profitability. PEFR measurements are paid for by medical aids.

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