



NEWS

New test for asthma will save NHS millions, says NICE

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GPs should diagnose asthma using objective tests including fractional exhaled nitric oxide (FeNO) and spirometry, the National Institute for Health and Care Excellence (NICE) recommends.¹ However, NICE says this change to current practice will take the NHS some time to implement, with additional infrastructure and training needed in primary care.

NICE says that the current practice of relying on signs and symptoms of asthma without objective testing can lead to overdiagnosis. It estimates that using objective tests could save the NHS between £10m and £15m (€11.2m and €16.7m; \$13.2m and \$19.9m) over a five year period, mainly through reducing unnecessary prescriptions.

FeNO tests measure the concentrations of nitric oxide in a person's breath, which is related to lung inflammation and asthma. A positive result is 40 parts per billion (ppb) or more in adults and 35 ppb or more in children and young people. The guidelines recommend that for adults with symptoms of asthma, FeNO should be measured first followed by spirometry. A bronchodilator reversibility test should be carried out if spirometry shows an obstruction. If there is still diagnostic uncertainty then peak flow variability should be monitored for two to four weeks, the guidelines state.

However, the equipment for FeNO testing is expensive—£1495 to £2540, depending on the model, plus the additional cost of filters and servicing. In order to implement the guideline, NICE suggests that clinical commissioning groups should consider establishing asthma diagnostic hubs to make testing more efficient and affordable.

NICE has been running a primary care pilot scheme trialling the use of spirometry and FeNO testing which has produced positive feedback. Seven sites from around England took part in the pilot. Practices were given the FeNO equipment free and also could claim back any extra spirometry training costs. Training in using the FeNO devices was given by the manufacturer and reported to be straightforward.

Six of the sites stated that FeNO was a welcome addition to the diagnostic process and an easy test to carry out, with positive feedback from patients. It was also reported that using FeNO gives additional confidence in prescribing decisions at an earlier stage. One site however reported persistent operational problems that affected the test results. The practices reported that diagnostic spirometry takes time to do correctly and that accessing and funding training could be a barrier to implementation.

Another change to the guidelines is that if a patient's asthma is uncontrolled on a low dose of inhaled corticosteroid then a leucotriene receptor antagonist (LTRA) tablet should be prescribed alongside. This should happen before the patient is given a long acting β agonist. NICE estimates that as LTRAs are significantly more cost effective this could save the NHS £2m a year for every 10 000 people who take up the recommendation.

Mark Baker, director of the centre for guidelines at NICE, said: "The investment and training required to implement the new guidance will take time. In the meantime, primary care services should implement what they can of the new guidelines, using currently available approaches to diagnosis until the infrastructure for objective testing is in place."

Andrew Menzies-Gow, consultant in respiratory medicine at the Royal Brompton and Harefield NHS Foundation Trust and co-chair of the guideline committee, said: "Our recommendations will help tackle inappropriate diagnosis and ensure that if a diagnosis is given, that the person is monitored to ensure their symptoms still indicate asthma."

1 NICE. Asthma: diagnosis, monitoring and chronic asthma management. November 2017. www.nice.org.uk/guidance/ng80.

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