

Fractional exhaled Nitric Oxide (FeNO) – Models of Care

#1: Screen Clinical, Northern Ireland

Organisations in England and Northern Ireland who have used, planned to use or commissioned FeNO for Asthma diagnosis and management have shared their real world experiences. A number of example care models and pathways were shared and one of them is described here.

Population	27,495 patients (3 practices)
Staffing	Pharmacist, practice nurse, GP and access to respiratory consultant.
Frequency	Weekly
Setting	Health centre hub for 3 practices
Service	<p>The practice clinical systems were interrogated to identify the following patient cohorts:</p> <ul style="list-style-type: none"> • Asthma patients who had ordered 12 or more reliever inhalers in the previous 12 months • Patients who were prescribed regular inhalers and who were not on the practice's respiratory registers • Patients who were prescribed separate ICS and LABA inhalers <p>FeNO measurement as an asthma management tool in primary care was run alongside the risk management project as a pilot.</p>
Established	2015-2018
Investigations	Patients attending the practice nurse for annual review or as a result of being symptomatic were offered: FeNO measurement; medications use review including compliance check; education focussing on symptom recognition and management of potential exacerbations; inhaler technique check.
Management	When FeNO level was elevated patients were offered appropriate therapeutic intervention and patient education.
Oversight	GP with access to secondary care consultant.
Follow-up	People with elevated FeNO were invited for follow-up.
Funding	NAPP Pharmaceuticals sponsored the FeNO equipment and pharmacist time for the project as a service to medicine. Some practices used year-end capital funding to purchase devices and a supply of consumables.
Driver for change	To address the findings of the National Review of Asthma Deaths (NRAD) report. The main aim of the project was to identify high risk patients and ensure all relevant healthcare professionals were engaged in the patient's care pathway so the chance of a serious event occurring was minimised.
Outcomes	<ul style="list-style-type: none"> • The patient reviews led to drug cost savings due to implementation of a practice formulary and to the development of practice asthma management protocols. Projected prescribing cost savings were in the region of £15,000 pa. • The median FeNO measurement before / after intervention and education was 72 / 45 ppb, P value of < 0.001