

# Fractional exhaled Nitric Oxide (FeNO) – Models of Care

## #7: NHS Gloucestershire CCG (West of England AHSN)

*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	92,000 patients (1 locality, 19 practices)
Staffing	Senior Nurse Practitioner - Respiratory
Frequency	1 session per week (3-4 new patients)
Setting	Community hospital
Service	A number of pilots conducted between 20016-19 with nurse practitioner seeing 'hard to manage' patients in her own practice and visiting other practices to give advice and training. In 2019 a locality based respiratory service pilot was established. This was for clarification or exclusion of difficult diagnosis of asthma vs. asthma/COPD overlap syndrome, giving advice on stepping up or down asthma medication, patient medication adherence or education issues, using FeNO and spirometry where appropriate in patients aged over 5 years.
Established	2019 – March 2020
Investigations	A diagnostic consultation involved: <ul style="list-style-type: none"> <li>• Full history, FeNO test, explanation of asthma and FeNO findings specifically about inflammation, then depending on the results a discussion of next steps</li> <li>• Spirometry not often carried out as reversibility and Salbutamol were not having any impact on the quality of the service and had usually been carried out by the referring practice</li> </ul>
Management	<ul style="list-style-type: none"> <li>• If someone had already been diagnosed the consultation focussed on a full explanation of asthma, inflammation, inhaler technique and medication adherence. A FeNO test was done</li> </ul>
Oversight	Senior Nurse Practitioner - Respiratory
Follow-up	<ul style="list-style-type: none"> <li>• If required, this was generally a 20-minute appointment</li> <li>• In both cases (diagnosis and management), the practice got a letter and was asked to prescribe or alter medication, this means the patient then had to re-connect with the practice</li> </ul>
Funding	<ul style="list-style-type: none"> <li>• Circassia supplied the device and consumables for the initial pilot</li> <li>• In the final pilot the CCG purchased a device and consumables</li> <li>• The patient participation group at the nurse's practice then funded a FeNO device for use in the practice</li> <li>• CCG funded nursing time, room rent and consumables</li> <li>• Appointment system 'piggy-backed' an existing locality wide system hosted by one practice</li> </ul>
Driver for change	<ul style="list-style-type: none"> <li>• Initiative driven by the nurse practitioner who is now Executive Chair of the PCRS</li> </ul>
Outcomes	<ul style="list-style-type: none"> <li>• Data from the first year of the pilot data demonstrated it was cost neutral (although the funding had been 'invest to save')</li> <li>• 2019/20 data was collected but not accessible</li> </ul>