Interpreting FeNO Readings[1] using NObreath® FeNO Monitor

ATS/ERS Clinical Guidelines summary for using FeNO to assist diagnosis & management of Asthma[2]

Measuring airway inflammation with NObreath® can help monitor the effectiveness of medication and can be used to predict the risk of Asthma attacks[1]*.

Aid in diagnosis using the NObreath® FeNO monitor

FeNO (ppb) Levels	LOW <25ppb (<20ppb in children)	INTERMEDIATE 25-50ppb (20-35ppb in children)	HIGH >50ppb (>35ppb in children) or rise in FeNO of >40% from previously stable levels
Symptomatic (chronic cough and/or wheeze and/or shortness of breath during past 6 wk)	Eosinophilic airway inflammation unlikely Alternative diagnosis Unlikely to benefit from ICS	Be cautious Evaluate clinical context Monitor change in FeNO over time	Eosinophilic airway inflammation present Likely to benefit from ICS

Alternative considerations (if Allergic Asthma has been dismissed)[2]

- **Non-Allergic Asthma**
- **Chronic cough**
- **Vocal Chord Disfunction**
- **GERD**

Monitoring (in patients with diagnosed asthma) using the NObreath® FeNO monitor

FeNO (ppb) Levels	LOW <25ppb (<20ppb in children)	INTERMEDIATE 25-50ppb (20-35ppb in children)	HIGH >50ppb (>35ppb in children) or rise in FeNO of >40% from previously stable levels
Symptomatic (chronic cough and/or wheeze and/or shortness of breath during past 6 wk)	Possible alternative diagnosis. Unlikely to benefit from increase in ICS	Persistent allergen exposure Inadequate ICS dose Poor adherence Steroid resistance	Persistent allergen exposure Poor adherence or inhaler technique Inadequate ICS dose Risk of Exacerbation Steroid resistance
Symptoms Absent	Adequate ICS dose Good adherence ICS taper	Adequate ICS dosing Good adherence Monitor Change in FeNO	ICS withdrawal or dose reduction may result in relapse Poor adherence or inhaler technique

Treatment Planning

FeNO testing with the NObreath® couldn't be easier:

Test, Treat, Repeat™

Regular FeNO measurements indicate levels of airway inflammation, which can help to tailor asthma diagnosis and management, whilst also helping to evaluate ICS dosing and the effectiveness of inhaler technique.

www.bedfont.com/nobreath

References:

1. J. Saito et al, European Respiratory Journal; Domiciliary diurnal variation of fractional exhaled nitric oxide for asthma control. August 15 2013, v.43, iss.4, pp 474-484.
2. R Dweik et al, Respiratory and Critical Care Medicine; An Official ATS Clinical Practice Guideline: Interpretation of Exhaled Nitric Oxide Levels (FENO) for Clinical Applications. September 1 2011, v.184, iss.5, pp 602-615.
3. Kharitonov S, Robbins R, Yates D, Keatings V, Barnes P. Acute and chronic effects of cigarette smoking on exhaled nitric oxide. American Journal of Respiratory and Critical Care Medicine. 1995;152(2):609-612.

*FeNO is not a definitive indication of asthma and should be used in conjunction with (but not limited to) spirometry, patient history, symptoms.
**Allergic = Eosinophilic / Non- Allergic = Non-Eosinophilic
*** Smoking has been shown to reduce exhaled NO (FeNO)[3]

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