

Adult NObreath[®] FENO interpretation chart for use in asthma management



Adults

| Adults | | | | |
|------------|--------------|---------------------|--|---|
| FENO (ppb) | Range | Airway Inflammation | Interpretation (as an aid in the management of asthma) | |
| | | | If Symptomatic | If Asymptomatic and taking ICS |
| <25 | Low | Unlikely | Review diagnosis - Consider: Neutrophilic asthma Anxiety/hyperventilation Vocal Cord Dysfunction Rhinosinusitis Gastro-oesophageal reflux | Implies good compliance with treatment. Consider reducing dose or, in case of low ICS dose consider withdrawal of ICS altogether |
| 26 - 49 | Intermediate | Present but mild | Consider: Viral Infection or intense allergen exposure may lead to increasing levels Adding in other therapy (not ICS) Increase in ICS dose | No change in ICS dose if patient is stable |
| 50+ | High | Significant | Consider: Check compliance Check for poor inhaler technique Inadequate ICS dose Continuous high level allergen exposure Imminent exacerbation or relapse depending on patient history | No change in ICS dose if patient is stable |

Children (<12 years of age)

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|-----------------------------|--------------|---------------------|---|---|
| FENO (ppb) | Range | Airway Inflammation | Interpretation (as an aid in the management of asthma) | |
| | | | If Symptomatic | If Asymptomatic and taking ICS |
| <20 | Low | Unlikely | Review diagnosis - Consider: Wheezy bronchitis Cystic Fibrosis Congenital abnormalities e.g. airway malacia Primary ciliary dyskinesia | Implies good compliance with treatment. Consider reducing dose or, in case of low ICS dose consider withdrawal of ICS altogether |
| 21 - 44 | Intermediate | Present but mild | Consider: Viral Infection or intense allergen exposure may lead to increasing levels Adding in other therapy (not ICS) Increase in ICS dose Check compliance Check for poor inhaler technique | No change in ICS dose if patient is stable |
| 45+ | High | Significant | Consider: Check compliance Check for poor inhaler technique Inadequate ICS dose Continuous high level allergen exposure Imminent exacerbation or relapse depending on patient history Metered dose inhaler and spacer if patient is currently using a dry powder device | No change in ICS dose if patient is stable |

Reference: Taylor D R et al. 2006, Exhaled nitric oxide measurements: clinical application and interpretation
(adapted from direct communication with D R Taylor)