**Guide to Interpretation of The NIOX Value in Patients with Airway Disease**

Do not use the guide if the patient is a smoker. Data are inconclusive for current smokers. The NIOX Value is complementary to spirometry in the diagnosis and assessment of airway disease.

<table>
<thead>
<tr>
<th>Eosinophilic inflammation</th>
<th>LOW</th>
<th>NORMAL</th>
<th>INTERMEDIATE</th>
<th>HIGH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unlikely</td>
<td>Unlikely</td>
<td>Present, but mild</td>
<td>Significant</td>
<td></td>
</tr>
</tbody>
</table>

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<th>ADULTS</th>
<th></th>
<th></th>
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<tbody>
<tr>
<td>NIOX Value (ppb)*</td>
<td>&lt;5</td>
<td>5–25</td>
<td>25–50</td>
<td>&gt;50 (or a rise of &gt; 60% since previous measurement)</td>
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</tbody>
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<th>CHILDREN &lt; 12 years</th>
<th></th>
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<tbody>
<tr>
<td>NIOX Value (ppb)*</td>
<td>&lt;5</td>
<td>5–20</td>
<td>20–35</td>
<td>&gt;35 (or a rise of &gt; 60% since previous measurement)</td>
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</tbody>
</table>

- **Consider:**
  - PCD (2)
  - CF (3)
  - Chronic lung disease of prematurity

- **If symptomatic:**
  - Review diagnosis (1)
  - If asymptomatic and on treatment:
    - Implies that patient is compliant
    - Consider dose reduction or withdrawal of anti-inflammatory drug

- **Interpretation based on clinical presentation**
  - If symptomatic and on anti-inflammatory treatment, consider:
    - Infection as reason for worsening
    - High levels of allergen exposure
    - Dose increase
    - Adding LABA
  - In addition for children
    - Check – compliance
    - Inhalation technique (4)

- **If asymptomatic and on anti-inflammatory treatment:**
  - Check
  - High levels of allergen exposure
  - Imminent exacerbation or relapse
  - Steroid resistance (rare)
  - Consider atopic asthma if the history is appropriate

- **If combined with any objective evidence of reversible airway obstruction, asthma is very likely**
  - If asymptomatic and on anti-inflammatory treatment:
    - Check
    - Inhalation technique (4)
    - Drug dose
    - Consider

- **If symptomatic and on treatment:**
  - Check
  - Compliance
  - Inhalation technique (4)
  - Drug dose
  - Consider
  - High levels of allergen exposure
  - Imminent exacerbation or relapse
  - Steroid resistance (rare)

- **For children, consider metered dose inhaler and spacer if patient is currently using a dry powder device.**

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(2) Primary ciliary dyskinesia (check nasal NO).

(3) Cystic fibrosis.

(4) For children, consider metered dose inhaler and spacer if patient is currently using a dry powder device.