

# Inducible Laryngeal Obstruction/Vocal Cord Dysfunction (ILO/VCD) & Severe Asthma

## WHAT IS ILO/VCD?

Inappropriate, transient reversible laryngeal narrowing in a compatible clinical context

### Symptoms:

- Dyspnoea
- Cough
- Dysphonia
- Stridor
- Frequent triggers: Odor, Exercise



## HOW DOES IT RELATE TO ASTHMA?

**Symptoms are often mistaken for asthma**

- ILO/VCD is an under-recognised alternate diagnosis to asthma
- ILO/VCD is also a frequent comorbidity of asthma (up to 30% of patients), which requires additional management

Diagnosis requires systematic assessment and confirmation of laryngeal narrowing usually with laryngoscopy

## VOCAL CORD POSITION DURING INSPIRATION

Normal



Supraglottic obstruction

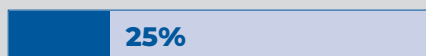


Glottic obstruction



Note: Variations may be observed including pre-vocal fold movement, partial closure or closure on one side

## PREVALENCE



ASTHMA



DIFFICULT ASTHMA - SYSTEMATIC ASSESSMENT



CHRONIC COUGH

## DIAGNOSIS & ASSESSMENT:

• Gold Standard: Laryngoscopy with Provocation (e.g. odor, exercise – continuous laryngoscopy on exercise)

- Questionnaires for screening & to measure symptoms
  - Pittsburgh Vocal Cord Dysfunction Index
  - Dyspnoea Severity Index
  - Newcastle Laryngeal Hypersensitivity Questionnaire
  - Vocal Cord Dysfunction Questionnaire



- Clinical observations
  - Rapid onset symptoms, often triggered by strong smells
  - Symptoms: Inspiratory dyspnoea, stridor, cough, dysphonia and laryngeal tension, more obvious during physical activity
  - Disparity between severity of symptoms and degree of lung function impairment

• Spirometry (flattened inspiratory arm on low volume loop) with or without bronchoprovocation testing

• Dynamic laryngeal CT

## TREATMENT OPTIONS:

**NOTE: ILO/VCD does not respond to asthma treatment**

- Speech pathology / respiratory re-training (e.g. breathing and cough suppression techniques)
- Continuous positive airway pressure (CPAP)
- Botox injections of the vocal cords
- Neuromodulating medication
- Surgery in rare cases



**Symptoms can be reduced through adequate hydration, reduced exposure to inhaled irritants, reducing phonotraumatic vocal behaviours, stress management and relaxation techniques.**