Advice note for assessment and management of vocal cord dysfunction

(For use in a fully assessed and monitored patient as part of a difficult asthma service)

**Background:** Upper airway wheeze (UAW) is recognised as a phenomenon which can masquerade as asthma and also occur in conjunction with asthma. It is attributed to vocal cord dysfunction although the evidence suggest a more generalised laryngeal problem. It is well recognised as a phenomenon in elite athletes where it can cause confusion with exercise induced asthma. Good epidemiological studies in asthma populations are lacking but a recent audit of 126 consecutive patients attending the NE Glasgow Problem Asthma Clinic over a 3 month period showed a prevalence of 16% (Abstract, BTS winter meeting 2009). The gold standard for diagnosis is direct visual observation of the larynx when symptomatic, or on exercise challenge, but these are both challenging—the former because of poor recognition of this problem within the ENT community, the latter because of lack of availability—the procedure is only undertaken in Preston, in the UK, as far as I am aware. A good summary of current knowledge and understanding is given in reference 2. Awareness of UAW as a potential confounding factor in poorly controlled asthma which will not be helped by prolonged high dose steroids is possibly the most important advice in this poorly researched area of current practice.

**Assessment of possible vocal cord dysfunction:**
- Consider this possibility in patients with difficult to control asthma
- Consider laryngoscopy at the time of an acute episode
- Obtain flow volume loop, but recognise that many patients with this condition have a normal looking inspiratory limb
- Consider listening with stethoscope over the vocal cord area regularly, to detect variable upper airway wheeze

**Treatment of vocal cord dysfunction:**
- Raise awareness with the patient that they are/may be experiencing UAW at times – they will often spontaneously note that they have been aware of episodes of throat tightening. I let them listen to their voice box with my stethoscope, with a normal voice box for comparison.
- Teach breathing control exercises with physiotherapy input.
- Discuss patient with local S&L services and try and involve them in teaching the patient laryngeal relaxation techniques which can be beneficial
- Treat any coexisting GORD symptoms, aiming to abolish symptoms completely.

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References:
Morris MJ, Christopher KL. Diagnostic criteria for the classification of vocal cord dysfunction Chest 2010; 138(5): 1213-1223

Christopher KL, Morris MJ Vocal cord dysfunction, paradoxical vocal cord motion or laryngomalacia? Our understanding requires an interdisciplinary approach Otolaryngol Clin N Amer 2010; 43:43-66