ASTHMA AND INFECTION – INFORMATION FOR INTERESTED CLINICIANS

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Should I treat my patient for "infectious" asthma?

An emerging body of evidence suggests that the more severe or refractory (treatment resistant) forms of asthma – in both children and adults – are associated with chronic lung infection with the atypical organisms *Chlamydia pneumoniae* (*Cp*) and *Mycoplasma pneumoniae* (*Mp*):

- In bronchoscopic studies of lavage fluid over 50% of pediatric asthma (and other forms of severe undiagnosed chronic lung disease) has been positive for *Cp.* Around 50% of adult asthma is associated with biomarkers for possible chronic infection.
- A recent randomized, controlled study found that azithromycin decreased asthma attacks and improved quality of life in adults with uncontrolled asthma that was not responding to inhaled medications (Gibson PG, et al. Effect of azithromycin on asthma exacerbations and quality of life in adults with persistent uncontrolled asthma (AMAZES): a randomised, double-blind, placebo-controlled trial. Lancet 2017;390:659-668).

Current evidence does not support blanket recommendations for antibiotic treatment for all asthma patients. Based on current information the types of patients most likely to benefit have either (1) new-onset asthma or (2) severe, uncontrolled or refractory asthma. These kinds of patients are increasingly self-identifying as candidates and are seeking azithromycin (see www.asthmastory.com for an informative patient perspective accompanied by an extensive literature review).

Should I select patients on the basis of laboratory testing?

I do not recommend selecting patients on the basis of, for example, blood testing for *Cp* antibodies because:

- It is unknown whether blood tests can predict a treatment response.
- Other organisms (e.g., *Mp* or unidentified bacteria) may be involved.
- The mechanism(s) responsible for treatment response is(are) unknown.

Currently the most predictive factor appears to be clinical presentation as described above (new-onset or severe, uncontrolled or refractory).

What treatment do you recommend?

For adults, I currently recommend:

- Azithromycin 250 milligram tablets, 2 daily (500 mg) for 3 days, then 3 tablets (750 mg) taken all together, once weekly for 12 weeks.

I provide patients with the following information:

- This is empirical, non-FDA approved treatment. Not everyone will repond to this treatment.
- Continue your usual asthma rescue and controller medications for the time being.
- Do not expect any response from this treatment for several weeks or months.
- If there is a response that wanes after treatment, I recommend re treatment.

Some people fail to respond to azithromycin but report a positive response to doxycyline. Azithromycin resistance in *M. pneumoniae* is one plausible, but unproven, explanation.

Further information is contained in my book "A Cure for Asthma?" available on Amazon.com or from the publishers at: http://www.peoplespharmacy.com/cure-asthma/

V8, 9/4/2017