BACKGROUND
Covariant asthma therapies are palliative, not curative and are based almost exclusively on short-term efficacy trials. Chlamydia pneumonia is an obligate intracellular bacteria respiratory pathogen that is associated with asthma.

Emerging evidence indicates that the association of Chlamydia pneumoniae with asthma meets all nine Hill’s criteria, raising for the first time the plausibility of a causative therapy.

RESEARCH QUESTIONS AND HYPOTHESES
We hypothesize that asthma clinical status will be improved by azithromycin at 3 months and that the treatment effect(s) will persist until 12 months.

PRIMARY: Does azithromycin improve asthma symptoms, asthma medication use, exacerbations and quality of life among adult asthma patients typically encountered in practice, and does the improvement persist after treatment is completed? We hypothesize that asthma clinical status will significantly improve asthma symptoms irrespective of subsidy status.

SECONDARY: Does treatment response depend on the presence/absence of (1) a history of smoking or (2) co-morbid respiratory conditions (COPD)? We hypothesize that azithromycin will specifically affect outcomes in individuals with a co-morbid condition.

METHODS
AZMATICS is a one-year practice-based randomized double-blinded effectiveness trial to test the hypothesis that azithromycin improves asthma clinical status among adults with persistent physician-diagnosed asthma. All adult patients (≥ 18) with asthma and national networks, including the Wisconsin Research and Education Network (WREN), screen and randomize adults with persistent physician-diagnosed asthma to azithromycin at 3 months (end-treatment) and that the treatment effect(s) will persist until 12 months (end-study).

PILOT RESULTS
Effect of 6 weeks azithromycin treatment on asthma symptoms in mild to moderate persistent stable asthma in adults (≥ 18) after controlling for Cps antibody level, age, sex, smoking, skin test status, infectious onset, age of asthma onset, asthma severity, and change in asthma controller medication use.

RESULTS
Network Enrollment and Survey Compliance, Aug. 2009

CONCLUSIONS
There is a pressing need for well-funded, long-term asthma trials testing the effectiveness of azithromycin as a cure for asthma.

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