Challenges & Opportunities in Asthma: A WREN clinician perspective

David L. Hahn. MD MS

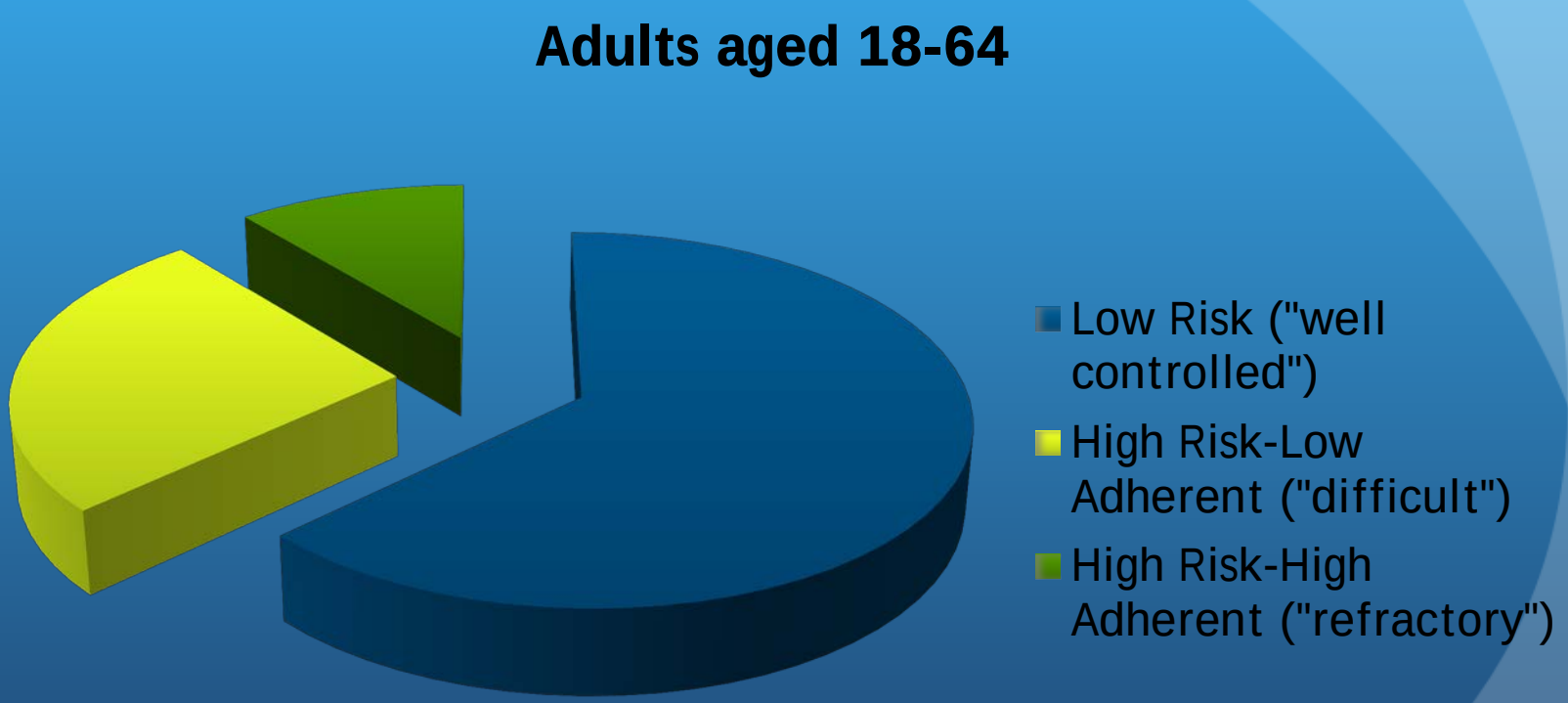
Challenges

- Diagnosing asthma
  - Measuring reversible airway obstruction
  - Patients with other lung problems and asthma
- Monitoring asthma
  - Documenting progress
- Treating asthma
  - High cost of medications, steroid issues
  - People who don’t respond to treatment (refractory)

Opportunities for WREN

- Diagnosis
  - Use of peak flow meters and newer devices
- Monitoring
  - Asthma Control Test (ACT)
- Treatment
  - Optimizing current treatments
  - Macrolides for refractory asthma (azithromycin)

Asthma severity in an HMO setting



Zeiger et al. Journal of Allergy & Clinical Immunology. 2015:in press
Note: excluded co-morbidities (e.g. COPD, chronic bronchitis)

#1 - Diagnosis

- Reversibility is a hallmark of asthma
- Many patients are not tested
- Is there a role for peak flow measurements in diagnosing reversibility?
- Inexpensive and available
- Requires patient (and clinic) training

#2 - Monitoring

- Documentation of progress is often lacking
- What are the best and most practical methods for documenting progress?
- Asthma Control Test (ACT)
  - http://www.asthmacontroltest.com/
- ACT being adopted as a quality metric

#3 - Treatment

- Optimization of current treatments
  - Next presenter
- Refractory asthma
  - Role for macrolides (azithromycin)?

Background

- Is asthma caused by an infection?
  - Cause may not be apparent in late stage disease
  - Best to study at the very beginning
- *De novo* wheezing – 10 cases*
  - 4 recovered without treatment
  - 5 developed asthma
  - 1 developed chronic bronchitis
- No further practice-based studies of *de novo* wheezing

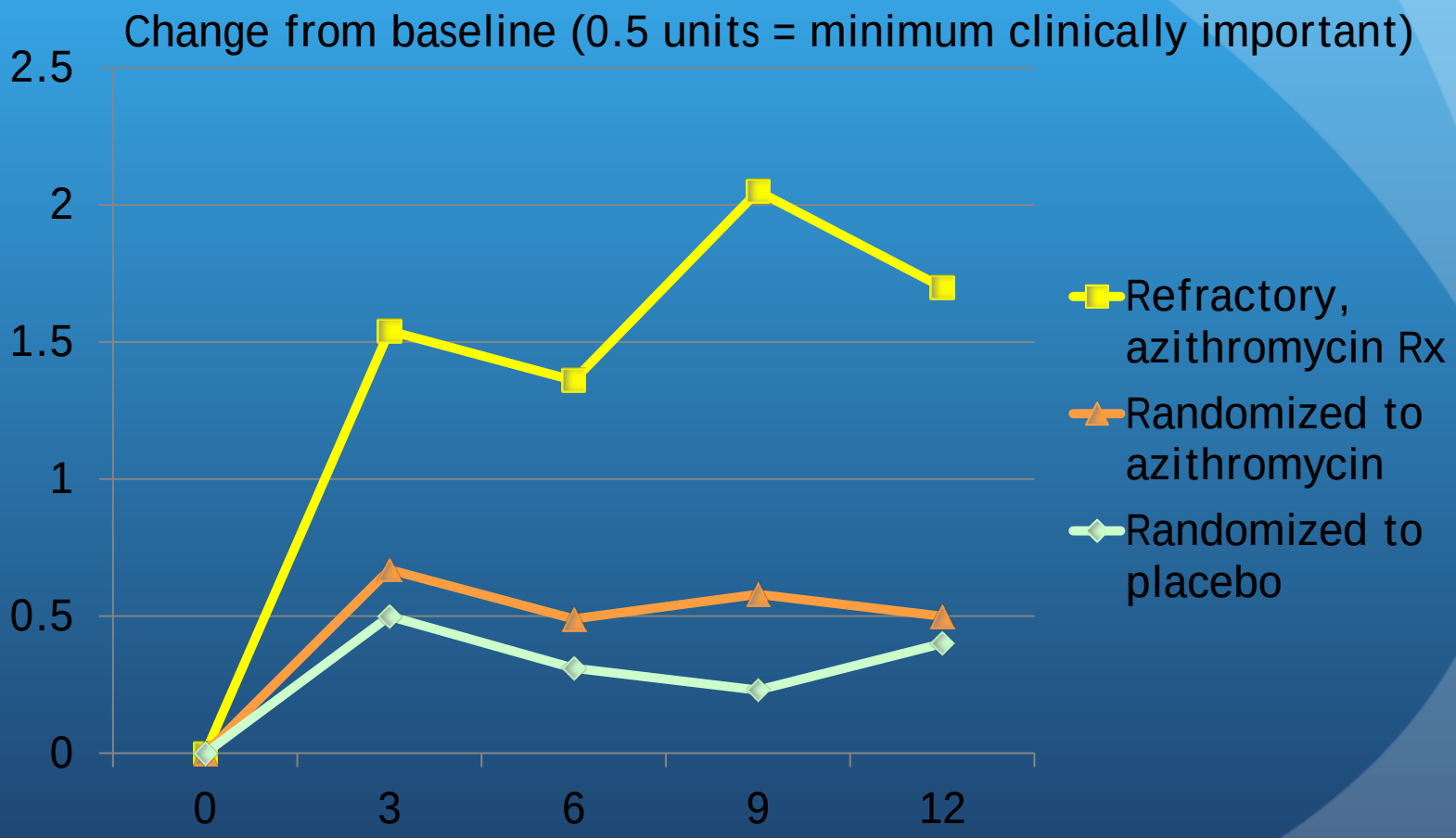
*Annals of Allergy, Asthma, and Immunology; Oct 1998;81:339-344

Why Macrolides for asthma?

- Active against *C. pneumoniae* & others
  - Azithromycin is a macrolide with unique properties
  - Macrolides also have anti-inflammatory properties
- Meta-analysis of 12 randomized, controlled trials*
  - Effective in the long term management of asthma
    - Symptoms, quality of life, bronchial hyperreactivity, peak flow
- Limitations
  - Small pilot (preliminary) studies
  - Unclear who benefits most

*Reiter et al. Allergy. 2013;68:1040-1049

AZMATICS - Quality of life



AZMATICS. JABFM. 2012;25:442-459

Refractory asthma

- Could it be infectious and/or treatable with macrolides?
- Infectious causes on no organization's research agenda
  - not Pediatrics
  - not Environmental Health
  - not World Health Organization
  - not even Primary Care
- Guidelines recommend *against* macrolides
- Yet patients with refractory asthma are seeking macrolides

Summary

- #1 - Diagnosis
  - Role for office/home peak flow meters & newer devices?
- #2 - Monitoring
  - How best to use the ACT in practice/community?
- #3 - Treatment
  - How to address emerging evidence for macrolides?
  - Registry documenting shared decision making, diagnosis, treatment & monitoring of macrolide-treated patients?