

Madigan Army Medical Center

Referral Guidelines

Exercise Induced Asthma, Adult

Diagnosis/Definition

- Increased airway reactivity and inflammation associated with exercise.
- History is suggestive in a patient who develops cough, shortness of breath, chest pain or chest tightness, wheezing or exercise intolerance during physical activity.
- Known associated conditions include nasal polyps, rhinitis, sinusitis, atopic dermatitis.
- Pattern of symptoms may include seasonal variation, worse in cold weather, worse with running (especially outdoors) than with indoor exercise, biking, swimming, or walking.
- Pulmonary Function Tests (PFTs), **REQUIRED** for Diagnosis:
 - PREVIOUS PFT EVALUATION: PFTs may reveal airway obstruction consistent with a diagnosis of asthma, but they may also be normal. A patient who has exercise induced symptoms and has had a positive methacholine or exercise spirometry test meets the diagnostic criteria.
 - IF NO PRIOR PFT EVALUATION: Refer patient for screening spirometry (MAMC). If airflow obstruction is demonstrated, then pre and post bronchodilator spirometry may be all that is needed. If screening spirometry is normal then refer patient for a methacholine challenge or an exercise challenge test (Specifically state in Consult “Rule out Asthma Protocol.” The consult should be sent to M_PFT.
 - If all of the above are normal, then other diagnoses need to be entertained (see referral indications below).

Initial Diagnosis and Management

- Use of an inhaled beta-2 agent such as albuterol at a dose of 2-4 puffs before exercise, or nedocromil or cromolyn at a dose of 2 puffs before exercise, usually controls symptoms. Albuterol is more effective than either cromolyn or nedocromil and should be considered the drug of choice. An excellent response to pre-exercise treatment with beta-2 agents makes the diagnosis of exercise induced bronchospasm likely.
- A warm up period of 5-10 minutes of light to moderate exercise prior to exertion is recommended .
- Ongoing Management and Objectives
 - Maintaining (nearly) normal activity levels and preventing any limitation in desired activity are the primary objectives. Secondary goals include avoiding any significant side effects of the medications, avoiding asthma exacerbations or requirements for acute or emergency therapy or hospitalization, maintaining required physical training capability and passing the APFT (for active duty soldiers).

Indications for Specialty Care Referral

- For specific or specialized pulmonary diagnostic testing as outlined above. For pre and post bronchodilator spirometry, or exercise and methacholine testing refer to the MAMC Adult PFT Lab (M_PFT consult).

- For active duty soldiers who have limitations requiring temporary or permanent profiles (Refer to ALLERGY or PULMONARY SERVICE).
- Patients with atypical presentations to include those in whom this diagnosis is suspected but studies as recommended above are normal (Refer to either the ALLERGY OR PULMONARY SERVICE).
- Patients who are not responding to appropriate therapy, i.e., albuterol, nedocromil, cromolyn in whom a clear diagnosis of asthma is present, (refer to either the ALLERGY OR PULMONARY SERVICE).
 - Note that Obesity, ie a BMI > 30 frequently causes dyspnea and/or the inability to pass the APFT and should have appropriate evaluation, dietary consultation and weight loss implemented.
- For patients who require further allergy evaluation such as for skin testing for allergies, immunotherapy or environmental control, refer to the ALLERGY SERVICE.

Criteria for Return to Primary Care

- Control of asthma symptoms allowing the patient to perform all required levels of activity when using medication appropriately.
- Patient understands the medications needed and uses them appropriately.

Last Review for this Guideline: **December 2009**

Referral Guidelines require review every three years.

Maintained by the Madigan Army Medical Center - Quality Services Division
Clinical Practice and Referral Guidelines Administrator