Clinicians can learn more at:

www.warrelatedillness.va.gov/
WARRELATEDILLNESS/AHBPCE/evaluation.asp

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Deployment-Related Respiratory Disease

January 2023

Clinical Guidelines for

Deployment-Related Respiratory Disease (DRRD)

Veteran with Post-Deployment Respiratory Symptoms

Medical and Exposure H&P

- Is the patient a previously deployed Veteran or a currently deployed military individual?
- Has the Veteran deployed to Iraq, other Southwest Asia country, Afghanistan or region where there may have been airborne hazards?
- Does the Veteran endorse exposure to burn pits and/or other sources of vapors, gases, dust and fumes?
- Does the Veteran present with persistent respiratory symptoms e.g., unexplained shortness of breath, decreased exercise tolerance, and/or chronic cough?

Constrictive Bronchiolitis (CB)

- Is defined as a histological pattern of lung injury characterized by subepithelial fibrosis of the small airways that narrows and sometimes obliterates bronchiolar lumens. Note that this abnormality is one of a spectrum of distal lung histopathology that has been seen in deployed Veterans with airborne hazards exposure.

Brief Exposure History Questionnaire

Evaluations

Consider
Asthma - Sinusitis - Rhinitis

- Respiratory symptom questionnaire
- Chest imaging (x-ray, CT)
- Complete pulmonary function testing with bronchodilator

Rep. Symptom Questionnaire

Other Co-Morbidities?

Diagnose

- Consider pulmonary consult or evaluate for other contributing factors and/or comorbid conditions including but not limited to: OSA, GERD, cardiac factors, laryngeal disorders, anemia.
- Tests may include, but are not limited to: transthoracic echo, laryngoscopy, sleep study, blood work

Manage Symptoms

- Respiratory symptoms may be improved by managing co-morbidities.

Asthma, Sinusitis or Rhinitis → **Evidence Based Treatment** → **Improvement?** NO

YES (REASSESS AS NEEDED)

YES (REASSESS AS NEEDED)

Evidence Based Treatment → **Improvement?** NO

Consider Advanced Assessments and/or Referral to Specialty Referral Center

If undiagnosed symptoms/inadequate response to treatment/persistence of additional symptoms or abnormal test results, then; consider referral to specialist for the following (if not available locally):

- Paired Inspiratory-expiratory HRCT;
- Cardiopulmonary exercise test (CPET)
- Methacholine challenge test

If results of testing remain non-diagnostic for persistent symptoms, despite treatment:

Manage Symptoms

Management of Veteran's symptoms should focus on overall pulmonary health.

Consider Lung Biopsy

- Surgical lung biopsies should be reviewed at a specialty center by an experienced pulmonary pathologist.
- Surgical lung biopsy may be considered, but not mandatory, when non-invasive/ minimally invasive diagnostic procedures do not yield a diagnosis and when there is a high suspicion of pathology, such as constrictive bronchiolitis.

Differential Diagnosis for Lung Biopsy

- Bronchiolitis, small airways inflammation, peribronchiolar fibrosis
- Granulomatous pneumonitis
- Hyperinflation or emphysema
- Chronic pleuritis and Pleural fibrosis
- Vasculopathy
- Interstitial lung disease
- Autoimmune disease

Depending on diagnoses, additional treatments may include:

- Steroids
- Methotrexate
- Referral to appropriate subspecialist
- Immunosuppressive agents
- Continue to manage symptoms and optimize health