This Checklist is a companion to “Asthma: A Business Case for Employers and Health Care Purchasers,” which reviews cost-effective strategies for reducing the burden of asthma in employees. The 2010 report is available at www.asthmaregionalcouncil.org and www.sustainableproduction.org.

Health Insurance Coverage Can Reduce the Burden of Asthma
Asthma burdens employers and employees alike. Symptoms unnecessarily interrupt daily routines, causing millions of adults and children to miss work and school, have lowered productivity, and use costly urgent medical services. Yet there is good news about asthma: multiple research studies and real-world programs show that high quality prevention-oriented services are cost-effective, improve health, and often reduce overall costs associated with the disease.

Insufficient or unaffordable health coverage prevents many people with asthma from accessing services and supplies that would keep their symptoms under control. Purchasers of health care can help overcome this barrier. By designing benefits appropriately, employers, brokers or other large health care purchasers can give people with asthma access to evidence-based best practices. When people with asthma access the elements of best practices appropriate for their disease status, their asthma can be brought under control, and so can the costs of their care.

Insurance Coverage Checklist for Quality Asthma Care
This Checklist is intended to support employers and other purchasers of health care as they design health benefits on behalf of employees. It focuses on evidence-based proactive asthma care services and supplies that prevent disease exacerbations and use of urgent care services. The Checklist, including the details in italics, reflects current science on cost-effective care, as reviewed by the National Asthma Education Prevention Program (NAEPP) Expert Panel1 and supplemented by reviews conducted by the Centers for Disease Control and Prevention (CDC).2 The Checklist also draws on the experience of programs around the U.S. that have translated research into practice.

The Checklist is organized in four sections, consistent with the four best practice elements that comprise the widely-respected asthma management guidelines issued by the NAEPP (the NAEPP Guidelines): (1) assessment and monitoring; (2) comprehensive pharmacologic therapy; (3) education for a partnership in asthma care; (4) control of environmental factors and co-morbid conditions that affect asthma. Successfully controlling asthma requires multi-faceted interventions tailored to the individual. Thus, while not all people with asthma will need all the services and supplies listed below, benefits packages must be structured to facilitate access to all four best practice elements.

Coverage policies for medications and equipment should be consistent with updates to the NAEPP Guidelines and can be found on the National Heart, Lung and Blood Institute’s website: http://www.nhlbi.nih.gov/guidelines/index.htm.


1. Measures of Asthma Assessment and Monitoring

Diagnosing a patient’s asthma is only the first step in reducing symptoms, quality of life impairment, and potentially life-threatening asthma attacks. Because disease severity and a patient’s responsiveness to treatments are highly variable and may change over time, successful asthma management requires continuous monitoring and assessment. Thus, the following provider and diagnostic services as well as medical supplies should be covered benefits and sufficiently reimbursed:

- Clinician Office Visits for Proactive Monitoring: at least once every six months, more as needed based on severity
- Spirometry for Objective Lung Function Assessment
  - Testing, as frequently as needed, in laboratories or in a clinical setting
  - Evidence is growing regarding the utility of exhaled nitrogen oxide for diagnosing and monitoring asthma symptoms
- Chest X Rays to exclude other diagnoses
- Equipment/Supplies: spacers, peak flow meters, nebulizer compressor/disposable kits as needed by patients
  - Duplicate equipment as necessary for home, work and school
- Expedited Referrals to Allergist and Pulmonologist
  - Same day services should be covered
  - Allergy skin tests, RAST or other in vitro allergy tests
  - Allergen immunotherapy
- Influenza and Pneumococcal Immunizations

2. Comprehensive Pharmacologic Therapy

The two general classes of asthma medications are: (1) long-term control medications used to achieve and maintain control of persistent asthma and (2) quick-relief rescue medications used to treat acute symptoms. Asthma medications are generally available only as brand name drugs, so they are expensive and do not tend to fall into the Tier 1 (lowest copay) category. These high out-of-pocket costs are a significant barrier for some patients to accessing the medications they need to control their symptoms. To enable people with asthma to obtain appropriate and affordable medications, covered benefits should include:

- Asthma Medications per NAEPP Guidelines
  - Formularies should be designed so as to reduce or eliminate out-of-pocket costs for essential drugs
- Multiple Prescriptions
  - Multiple inhalers or other medications so patients can readily access them when needed at school, at work, and/or at more than one home
3. Education for a Partnership in Asthma Care

Asthma education conveys culturally appropriate information about: (a) basic facts about asthma, (b) self-management techniques/self-monitoring skills (peak flow and symptom-based monitoring using an Asthma Action Plan), (c) proper use of medications, and (d) actions to mitigate or control environmental exposures that exacerbate symptoms. Asthma self-management education should be integrated into all aspects of asthma care, and requires repetition as well as reinforcement. The following educational services and supplies should be covered benefits, and associated provider services should be sufficiently reimbursed:

- **Extended Office Visits or in-Clinic Asthma Education Sessions**
  - Reimbursement for longer primary care office visits to allow sufficient time for patient education and medication instruction
  - Reimbursement for discrete individual or group self-management education or support sessions conducted by a broad range of qualified providers including those who deliver primary care (physicians, mid-level practitioners, registered nurses, respiratory therapists), as well as certified asthma educators or chronic disease self-management leaders

- **Education Sessions in Settings Outside the Clinic (Home, School, Work, or Community Center)**
  - Reimbursement for services of qualified providers to reinforce basic asthma education, if recommended and approved by the primary care provider. These include the range of providers listed above as well as others with appropriate training for delivering education in community or home settings, e.g., licensed clinical social workers and community health workers.

- **Case Management for High Risk Patients**
  - Services of case managers to help patients with asthma address other medical and social issues that complicate their disease, and to help coordinate their care. These services could be provided directly by the health payer or within the primary care practice/medical home, or contracted out to a consultant and reimbursed.

**A Note on Qualifications of Providers Delivering Asthma Education and Home Visits**

Insurance should reimburse for appropriately trained providers. As this Checklist suggests, primary care providers and certified asthma educators are qualified to teach people with asthma about medications and their use. For reinforcement of this education, and for teaching about environmental triggers and steps to reduce them, people with basic health education and social services responsibilities, such as community health workers, can also be effective and less costly. These latter providers should have robust asthma-specific training and have regular opportunity to consult with clinical experts. For independent community organizations, the American Association of Respiratory Therapists has begun to certify entire programs that include the range of personnel to ensure quality control.
4. Control of Environmental Factors and Co-Morbid Conditions that Affect Asthma

**Control of Environmental Factors.** Reducing exposure to environmental triggers can often make the difference between a person living productively with asthma versus being severely impeded by symptoms. Environmental factors in the home that exacerbate asthma can be mitigated with guidance from a trained clinician or environmental counselor. The following home-based environmental services and supplies should be part of the patient’s asthma management plan and reimbursed as appropriate given a patient’s disease status, allergen sensitivities and the condition of the home:

- ✓ Home Environmental Trigger Assessments and Education
  - Services delivered by a range of providers (see providers listed under Education for a Partnership in Asthma Care) trained to identify opportunities to reduce and mitigate asthma triggers

- ✓ Environmental Trigger Supplies and Remediation Services
  - Supplies to minimize exposures to triggers, including mattress/pillow encasements, HEPA air and vacuum cleaners, and non-toxic pest control supplies
  - Professional services (e.g., specialized cleaning and Integrated Pest Management services) if needed

- ✓ Smoking Cessation Counseling (group or individual) for people with asthma and their family members, as environmental tobacco smoke has been shown to initiate or exacerbate others’ asthma
  - Necessary pharmacology (e.g. nicotine patches)

**Control of Co-Morbid Conditions.** Many people with asthma have other health conditions that can impact asthma severity and control. Covered benefits should include the following services to address a range of co-morbid health conditions:

- ✓ Treatment of Co-Morbid Conditions As Needed
  - Reimbursement for the range of providers with expertise in health conditions that affect asthma, in particular: rhinitis, sinusitis, obesity, gastro-esophageal reflux disease, chronic stress and depression as well as chronic obstructive pulmonary disease. Specify that same day visits are reimbursable.

- ✓ Counseling Referrals for Control of Co-Morbid Conditions
  1. Weight management/nutrition counseling (group or individual)
  2. Mental health counseling for patients with significant psychiatric, psychosocial, or family problems that interfere with proper asthma management

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3 The evidence of effectiveness and cost-effectiveness of environmental interventions for children and adolescents with asthma is strong. While the vast majority of rigorous research studies on environmental interventions have focused on children, results of on-the-ground programs suggest that these home visits can be effective for adults as well.

4 In some cases of uncontrolled asthma, home conditions may require environmental assessment professionals with capacity to test for levels of agents that can exacerbate the disease. These services may be available through public health departments. Such services and the interventions required for remediation are considered “high intensity” and are not among those shown in the literature to be cost-effective. However, in some individual circumstances, cost-savings from improved asthma control may exceed the costs of assessment and remediation. Direct reimbursement for these services could be considered in exceptional circumstances where asthma remains out of control despite adherence to medication and provision of environmental trigger supplies and services.