Diagnosis & Evaluation

History

- Living conditions – Elicit a description of where the patient sleeps, where medications and inhalers are stored, rules for medication use/storage if living in a shelter. Assess allergen exposure.
- Working conditions – Ask about occupational exposures that may contribute to asthma.
- Symptoms – Ask what causes / worsens asthma symptoms, if treatment is effective, if patient is awakened by dry cough, about frequency of inhaler use.
- Functional impairment – Determine patient’s activity level and relationship of activity to symptoms.
- Prior diagnosis, treatment – Ask when patient was diagnosed with asthma, number of ER visits, hospitalizations. Ask about adherence to prior treatment and what patient does to relieve asthma symptoms.
- Inhaled substances – Specify substances inhaled: tobacco, marijuana, cocaine, glue, heroin.
- Treatment during incarceration – If patient was recently incarcerated, ask about treatment during incarceration and if medications were returned on release.
- Medical/mental health history – Ask about history of mental illness, tuberculosis, and HIV.
- Prior providers – Ask about other health care providers and where prescriptions were filled. Assess patient mobility and the likelihood of remaining in one place to work on asthma control.
- Health insurance – Ask whether patient has prescription drug coverage.
- Literacy – Assess patient’s ability to read instructions in English or their primary language.
- Reliability – Consider possibility that patient may give unreliable information about a history of asthma to obtain inhalers to sell or to enhance illicit drug effects.
- Complexity – Recognize that homeless patients’ complex health and social conditions complicate history taking, diagnosis, and treatment.
- ER/acute care visits – Ask how and when patient uses emergency rooms, outreach sites, and other health care facilities to assess symptom control, treatment adequacy, and potential for primary care.

Physical Examination

- Nasal exam – Assess for nasal inflammation or signs of chronic sinusitis secondary to drug inhalation, which may complicate asthma control.
- Mental health status – Assess for cognitive deficits, delusions, hallucinations, and signs and symptoms of psychoactive substance use that complicate treatment adherence.

Diagnostic Tests

- Spirometry – Access to spirometry may be limited; history, physical examination, and peak flow measurement may be the only available options for diagnosis.
- Tuberculin testing and chest X-ray – Maintain a high index of suspicion for tuberculosis as an alternative or co-existing condition. Screen for tuberculosis with purified protein derivative testing; consider chest X-ray in immunosuppressed or symptomatic patients.
- HIV test – Offer where facilities, expertise, and support are available to provide HIV care.
- Serologies or sputum cultures – Consider other respiratory infections (histoplasmosis, coccidiomycosis) that cause chronic cough. Be alert to infections in region(s) where patient has lived.

Plan & Management

Education, Self-Management

- Inhaler use – Ask patient to demonstrate at every visit. Demonstrate/explain correct use.
- Spacers – Toilet paper rolls, respiratory tubing, or plastic water bottles with a hole cut in the bottom may be used with inhalers as spacers.
- Nebulizers – Recognize that patients without health insurance usually cannot get nebulizers. Those who have nebulizers and live in shelters need designated space for storage and use.
- Cleaning nebulizers & spacers – Teach patient how to clean equipment with vinegar and water; provide vinegar.
- Smoking – Encourage cessation. Investigate providing pharmacologic aid through manufacturers’ patient assistance programs. If patient is not ready to quit, use harm reduction approach of decreasing number of daily cigarettes.
- Shelter staff – Educate shelter staff about reducing asthma triggers such as mold, dust, chemicals, and secondhand smoke.
- Patient goals – Encourage patient to set own treatment goals.
- Asthma action plan – Use a symptom-based action plan if patient is unable to carry or use a peak flow meter. Provide a wallet-size written action plan appropriate to literacy level.
- Assessment of understanding and ability to adhere – Ask, “Was anything discussed today unclear? Will anything in this plan of care be difficult for you to do?”
Medications

- **Choice of Rx** – Use the simplest medical regimen available to patient.
- **Inhaled corticosteroids** – Discuss importance of controller medications at each visit, but realize homeless clients may value quick relief over prevention and may not use ICS.
- **Short-acting beta agonists** – Recognize potential for misuse and monitor number of inhalers used. Recognize that patients may be obtaining additional inhalers at emergency rooms, outreach sites, or other facilities.
- **Long-acting beta agonists** – Assess patient’s ability to use these correctly; prescribe cautiously or not at all if they may be used for quick relief.
- **Dispensing inhalers** – Recognize that patients may not fill prescriptions; dispensing them on site is more effective.
- **Medication reconciliation** – Have patients bring their medications to each visit to identify drugs provided by other clinicians that may exacerbate asthma.

Associated problems, complications

- **Lost, stolen, abused medications** – Be aware that albuterol is used to enhance effects of cocaine and has high street value.
- **Financial barriers** – Help uninsured patients apply for SSI/ Medicaid or obtain medications through pharmaceutical discount programs (340B, manufacturer-sponsored patient assistance programs).
- **Transience** – Recognize that patients may seek care from more than one source and may not remain in one area, or may be intermittently incarcerated.
- **Functional impairments** – Evaluate for cognitive deficits secondary to substance use, mental illness, trauma, and/or developmental disability that complicate treatment.
- **Literacy/ language barriers** – Assess literacy tactfully; obtain or create educational materials appropriate to literacy levels and primary language, and assess understanding.
- **Misdiagnosis** – Recognize that patients may have been misdiagnosed with asthma during emergency room visits or by other care providers.

Follow-up

- **Regular follow-up** – Explain importance of regular care, explore barriers, and provide incentives to return.
- **Contact information** – Identify ways to contact the patient (case managers, cell phones, shelters, e-mail, voicemail services, outreach workers).
- **Medication control** – Identify ways patient can obtain medication refills before inhalers run out.
- **Outreach, case management** – Coordinate a plan of care with outreach workers and case managers.
- **Shelters** – Work with shelter staff to facilitate rescue care, store nebulizers, remind clients to take medication, provide smoke-free spaces, and decrease asthma triggers.

What Is Homelessness?

A homeless person is ... an individual without permanent housing who may live on the streets; stay in a shelter, mission, single room occupancy facility, abandoned building or vehicle; or in any other unstable or non-permanent situation. An individual may be considered to be homeless if that person is ‘doubled up,’ a term that refers to a situation where individuals are unable to maintain their housing situation and are forced to stay with a series of friends and/or extended family members. In addition, previously homeless individuals who are to be released from a prison or a hospital may be considered homeless if they do not have a stable housing situation to which they can return. Recognition of the instability of an individual's living arrangement is critical to the definition of homelessness.


Excerpts from *Adapting Your Practice: Treatment & Recommendations for Homeless Patients with Asthma (2008)*

Health Care for the Homeless Clinicians’ Network

These and other recommended clinical practice adaptations are available at [http://www.nhchc.org/practiceadaptations.html](http://www.nhchc.org/practiceadaptations.html)