

**Physician Information for Patients Requesting Antibiotics for Home Storage for  
Post-Exposure Prophylaxis for Anthrax  
V 3.12**

**Purpose:**

This document is intended to provide information to physicians if patients request a prescription for themselves and/or appropriate family members for home storage of antibiotics for anthrax post-exposure prophylaxis (PEP). The Department of Health and Human Services (DHHS) does not in general endorse home storage of antimicrobials in pre-event situations. However this information is being provided because DHHS recognizes that some individuals may desire home storage of appropriate antimicrobials for anthrax to reduce their dependency upon federal, state, and local public health mitigation strategies for delivering PEP to exposed populations. This document contains general information for the physician. A separate patient information sheet is provided for the physicians to distribute with the prescription.

**Anthrax: Bioterrorism Related Information:**

*B. anthracis*, the bacterium that causes anthrax, is classified as a Centers for Disease Control and Prevention (CDC) Class A biological warfare agent and the Department of Homeland Security has determined that anthrax poses a material threat sufficient to affect national security. Anthrax is considered one of the most likely biological agents to be used deliberately because of the ability to disseminate *B. anthracis* spores and crystalline toxin as an aerosol over wide geographic area, of the ability of *B. anthracis* spores to be inhaled and infect people by the respiratory route, the high mortality of pulmonary anthrax, and the greater stability of *B. anthracis* spores in the environment compared with other potential biological warfare agents. Modeling by federal agencies and international organizations such as WHO indicate that hundreds of thousands to a million or more individuals could be exposed during a deliberate aerosol release of *B. anthracis* spores. Additional information on *B. anthracis* can be found at [www.bt.cdc.gov](http://www.bt.cdc.gov).

**Anthrax: Public Health Preparedness:**

PEP is effective to prevent anthrax after *B. anthracis* aerosol exposure, as it can take days or weeks for inhaled spores to germinate into bacilli capable of causing disease. To be most effective, PEP should be initiated as soon as possible, ideally within 24 hours, after aerosol exposure to spores. Following the anthrax attacks of 2001, the potential for future bioterrorism attacks with *B. anthracis* has prompted extensive efforts in public health preparedness and response. The Strategic National Stockpile is a national repository of medical countermeasures including antimicrobials for PEP. Initial quantities can be delivered anywhere in the US within 12 hours of the federal decision to do so. In general, home storage of antimicrobials is not recommended. However, we understand that some individuals will consider home storage of appropriate antimicrobials in the event that federal and public health infrastructure cannot ensure availability or timely distribution of PEP to a large number of potentially exposed people. This information is being provided to ensure that they have appropriate information if they do so. At state and local points of dispensing (PODs), public health officials will initially distribute to individuals a 10-day course of antimicrobials. In-home availability of a 10-day course of antimicrobial agents

allows potentially exposed individuals to immediately begin prophylaxis without waiting for PODs to be established. Evidence from animal studies and limited epidemiologic data suggests that increasing the time between exposure and first dose of antimicrobial PEP may increase the risk for development of significant pathology and resultant morbidity among persons exposed; this is particularly true for those receiving greater doses.

**Post-exposure Prophylaxis (PEP):**

In the event of a mass exposure to *B. anthracis* spores, persons exposed should begin post-exposure prophylaxis (PEP) with an appropriate antimicrobial agent. Advisory Committee on Immunization Practices recommends administration of anthrax vaccine as part of a PEP regimen. Public health officials will provide information on how and when to obtain anthrax vaccine at the time of the emergency. Ciprofloxacin, levofloxacin, and doxycycline are three Food and Drug Administration approved antimicrobials for PEP for anthrax, but, if home storage is undertaken, home storage of doxycycline is preferred for three major reasons. First, doxycycline may still be useful if a bioterrorism event were to involve an agent other than anthrax. Second, home storage of a single antimicrobial agent will simplify messages given to the public to either use home-stored antimicrobial agents or to direct those unable to take doxycycline on how to obtain appropriate PEP. Third, because of concern that widespread misuse of any antimicrobial agent will promote antimicrobial resistance, doxycycline, is preferred for home storage to preserve effectiveness of ciprofloxacin and levofloxacin for more common clinical indications. Doxycycline is administered to adults as a 100 mg dose to be taken orally twice daily. PEP should be continued until *B. anthracis* exposure is excluded, as determined by local public health authorities. If exposure is confirmed through public health assessment, PEP should continue for at least 60 days and additional antimicrobials beyond the 10-day supply will be provided at points of dispensing.

**Patient considerations:**

There are benefits and risks to home storage of antimicrobials. Storage of a short-course of antimicrobials in homes is one mechanism that could provide rapid access to prophylactic antimicrobial agents that could prevent illness and death if your patient were subsequently exposed to an intentional anthrax spore release. However, the decision for providing a prescription for this PEP purpose to an individual patient and/or appropriate family members, similar to the decision for providing prescriptions for other therapies, should be weighed against the likelihood of exposure, drug side effect profiles, patient history of reactions, patient health, and social situation. Some individuals may be homebound or concerned about their inability to get access to medications quickly. One must assess his/her patients' history of medication use, allergies, compliance, and general health when determining if he/she will provide a prescription to one's patient for antimicrobial agents for the purpose of home storage for use only when the patient has been exposed in an anthrax specific emergency.

**Sample Prescription:**

Dr. Any Name Smith 123 Main St. Your Home Town, ST 55555	
Patient Name: <u>Jane Q. Public</u>	Date: <u>1/1/08</u>
Address: <u>234 Main St</u>	Age: <u>18</u>
Rx: <u>Doxycycline 100mg po bid</u>	
Quantity: <u>#20 (twenty)</u>	
Sig: <b><u>For emergency use only. Do not open or use until directed by a public health official or medical provider.</u></b>	
<u>Take one tablet every 12 hours until gone. Follow public health instructions if additional medicine is needed.</u>	
<u>Present bottle and any remaining medication on follow up medical visit.</u>	
<u>AN Smith, MD</u> A.N. Smith, M.D.	
No Refills	

**Information on Doxycycline for Patients:**

If a doctor chooses to prescribe doxycycline for home storage for post-exposure prophylaxis for anthrax please communicate the following information to his/her patient and/or appropriate family members:

- Known and potential risks and benefits of receiving post-exposure prophylaxis with doxycycline
- Information on appropriate use and home storage of doxycycline.
- General information about the side effects of doxycycline and other special considerations

This information can be found in the attached patient information sheet.

**Antimicrobial Resistance:**

Home access to antimicrobials agents for PEP raises concerns about the inappropriate use for other indications (e.g. self-diagnosis of upper respiratory infections, urinary tract infections or acne) and that they may also promote antimicrobial resistance in organisms that colonize the gut, skin or upper-respiratory tract. These concerns have been raised by American Medical Association, Alliance for Prudent Use of Antibiotics, CDC's Get SMART Campaign and state and local public health departments. It is important to provide the patient information sheet and emphasize that PEP antimicrobials should only be used when there is a public health notification of an emergency involving anthrax .