

Dragon, Karen E. (CDC/NIOSH/EID)

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Comments

These comments are in regards to pre-deployment immunization.

An effort to demarcate recommendations based on specific job titles or certifications is natural and logical. At the same time, in the moment of unspeakable disaster, emergency responders react in ways that defy these definitions. For example, every emergency responder could be [self] deployed as a search and rescue participant at any given moment and then encounter seriously degraded sanitary conditions involving surroundings contaminated by [contagious] body fluids. Therefore, it seems reasonable to include hepatitis A as a routine vaccination for all emergency responders (fire, law enforcement, EMT/Paramedic personnel) rather than give confining examples such as HAZMAT, Search and Rescue, SCUBA, etc. Since universal childhood vaccination against hepatitis A became a standing recommendation in the U.S. for all 1 year olds in May 2006, it is worth considering adding hepatitis A vaccination as a job prerequisite for those born before 2005.

Another limitation in this Draft is the seemingly out-of-date recommendation for the anthrax vaccine. The language used in this Draft is consistent with very old CDC Advisory Committee on Immunization Practices (ACIP) advice from 2000. It is not in step with the recently updated recommendation from the CDC ACIP published in MMWR July 23, 2010. In this 2010 guidance, people involved in emergency response activities (persons who work in police departments, fire departments, hazardous material units, and the National Guard, as well as other government responders) may be offered anthrax vaccination pre-exposure on a voluntary basis under the direction of a comprehensive occupational health and safety program.

This is in keeping with what is now known about the anthrax weapon as follows: anthrax has been made to be resistant to ALL antibiotics designed to treat the disease; weaponized anthrax powder is microscopic in size and converts to the gaseous phase rapidly wherein it becomes invisible, odorless, tasteless and undetectable; the weaponized powder has been concocted to reduce electrostatic charge and thereby easily reaerosolized about the attack zone and beyond; personal protective equipment (PPE) is not fool proof - 6 out of 9 HAZMAT specialists were exposed in the 2001 Hart Senate Office attack partly due to the difficulties discerning the safe versus hot zone. Understanding the weapon faced by emergency responders is the key to rational advice on pre-exposure vaccination.

Possibly more important is to understand that in the face of an anthrax attack matriculated with antibiotic resistant strains, the current plan of post-exposure antibiotics plus vaccine will fail. In this scenario, our current, post-exposure response plan fails our critical infrastructure personnel on whom we rely for civil order and continuity of operations and government. These courageous, selfless professionals are not adequately prepared for an attack with antibiotic-resistant anthrax! Pre-deployed courses of antibiotics (to which the strain could be resistant) will neither treat the infection nor stay the disease and the emergency responder will succumb long before any immunity can be conferred by vaccine administered post-exposure. This is not the fault of the anthrax vaccine - no immunization can bestow protection in less than 2-4 weeks and especially when the recipient is actively ravished by the infection and toxicity of disease. On the other hand, pre-exposure vaccine administration is expected to protect against all strains of anthrax, even those strains engineered to be antibiotic-resistant. And pre-exposure vaccination, if undertaken sooner rather than later, can be accomplished in an orderly, unrushed, consistent manner pursuant to the FDA-label and within the confines of an already-established clinician-patient relationship. Finally, the vaccine is in ample supply; so much so, that 500,000 doses per month are being discarded from the U.S. Strategic National Stockpile (SNS) due to shelf-life expiration dating.

Two key complaints and legitimate criticisms about the U.S. government response to the anthrax letter attacks almost 10 years ago were the lack of forward-thinking leadership and Inter and Intra-Agency mixed messaging.

NIOSH has the opportunity to take an anticipatory leadership role and demonstrate it acknowledges the worst-case biologic threat scenario of antibiotic-resistant anthrax. And NIOSH would be well-advised to synchronize its recommendations for anthrax vaccination in emergency responders with the CDC ACIP.

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