

# All-Hazards Preparedness

## What Does It Mean to You?

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Imagine an improvised explosive device “Dirty Bomb” detonates on the San Francisco Bay Bridge and then, incredibly, the Bay Area is rocked by a magnitude 7.9 earthquake the very next day! Devastation of life and property is widespread, with the counties of Sonoma and Napa to the north and Monterey to the south suffering catastrophic destruction of private and public infrastructure. The initial casualty estimate is more than 1,500 dead and 5,000 injured, and fatalities are expected to triple over the next several days. The initial public safety assessment reveals that police, fire, and rescue assets are overwhelmed and that their ability to respond is rapidly deteriorating. Bridges have collapsed, and roadways now serve as roadblocks, interrupting access in and out of the area.

Within 24 hours, the U.S. Navy stages off the coast of San Francisco a force centered around an amphibious assault ship that contains operating rooms, intensive care and medical/surgical bed capabilities, and the ancillary support of a complete medical center. This simulated military operation provides organized and mobile resources to the state and community elements that have been overwhelmed on the ground.

This scenario served as the basis for a statewide disaster preparedness drill, which took place November 14-16, 2006, and was aptly called Operation Golden Guardian. In times of national disaster, Americans expect mobilization of federal disaster management assets, including the military, to assist with organizing the response to a major catastrophe such as this.

The Navy is no newcomer to the field of national disaster preparedness. In 2005, after Hurricane Katrina pounded the Gulf region, the Federal Emergency Management Agency led the Department of Defense response to the region: the Navy positioned medical assets aboard the U.S.S. Iwo Jima, as

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well as several Naval Casualty Receiving Treatment Ships. Although state and national disaster response assets may seem robust in the face of a crisis, the question for practicing anesthesiologists who may play an active role in the medical or humanitarian response is: "Are we ready in our personal and work-place environment to deal with such a threat?"

This question is especially appropriate for health care professionals in California because the Golden State scored at the bottom of a nationwide assessment of health emergency preparedness capabilities. This sobering revelation was made by the not-for-profit Trust for America's Health in their fourth annual "Ready or Not? Protecting the Public's Health from Disease, Disasters, and Bioterrorism, 2006." In this assessment, California was judged specifically to be deficient in: not having sufficient laboratory facilities to meet the bioterrorism threat, failing to preserve at least a two-week hospital bed surge capacity in a moderate pandemic, not maintaining compatibility with the CDC's National Electronic Disease Surveillance System, and having a relative nursing workforce shortage.

These system-wide shortfalls are outside the scope of preparedness for the practicing anesthesiologist; nonetheless, each of us could be confronted with a natural or unnatural disaster at any time, and we can help our families and our communities and our patients at our places of work by being knowledgeable and prepared. Fortunately, many resources are available for both the private citizen and the clinician to serve as starting points for developing a personal preparedness plan, and also for learning about all-hazards preparedness. The Web sites of FEMA and the Department of Homeland Security both contain excellent resources.

In particular, the Department of Homeland Security highlights a new preparedness campaign (<http://ready.gov>) focused on personal and business preparedness: "Resolve to be ready in 2007." The ReadyAmericans site contains a series of checklists and downloads as well as links to specific state sites which all aid in the preparation of a basic personal emergency preparedness plan. A similar site has been developed for business owners. Finally, a ReadyKids Web Site takes the concept of preparedness to the level of a school-age child, with a multimedia animated display with age-specific language that describes different emergency scenarios and how children can become prepared.

As physicians, we will be called upon to assist with the initial triage and management of an environmental or biological disaster, and as anesthesiologists we also may be expected to have a working knowledge of some of the threats we face in an outbreak or biological disaster. The Centers for Disease Control

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and Prevention maintains an excellent compendium of the environmental as well as biological threats that physicians could be called upon to deal with in a catastrophe. In addition to maintaining the statewide Public Health Emergency Response Plan and Procedures, the California Department of Health Services has produced a guide on California Hospital Bioterrorism Response that seeks to inform and guide physicians and hospital administrators in the detection and management of a wide range of types of disaster casualties.

Another valuable resource for anesthesiologists is their county Office of Emergency Services. Many counties have devoted a large portion of their OES Web Sites to disaster preparedness and emergency management and have developed local health jurisdiction bioterrorism sites with specific areas devoted to physicians, nurses, epidemiologists, and other health care professionals. Many of these Web sites are also excellent resources for personal and family disaster preparedness.

The CSA has strived to ensure that California anesthesiologists have the tools to stay informed about the many natural and unnatural threats that encompass the term "Disaster Preparedness." The CSA was the first and is still the only state component anesthesiology society to develop and maintain a Disaster Preparedness section on its Web site.

Many federal and state agencies are now adopting the term "All-Hazards Preparedness" to describe the myriad calamities which may strike, as well as both common and unique methods which can be used to mitigate destruction and loss of health and property. It is with our tradition of education and public service that the CSA continues to expand the All-Hazards Preparedness link within its Web site. To complement these Internet resources, a series of articles focusing on All-Hazards Preparedness will appear in the *CSA Bulletin*. This first article is an introduction to the topic. Subsequently, we will explore the practice of anesthesiology in an austere, combat environment by highlighting the experiences of an anesthesiologist deployed to Iraq. Another article will feature an anesthesiologist faced with the daunting task of providing care to victims of the Indonesian tsunami. The last article will be written by Dr. Jill Antoine, Chair of the ASA Committee on Trauma and Emergency Preparedness. Stay tuned and get prepared!

## References

- <sup>1</sup> <http://www.dhs.ca.gov/ps/ddwem/environmental/epo/EPOIndex.htm>. The California Public Health Emergency Response Plan and Procedures as well as the Hospital Bioterrorism Response Guide.
- <sup>2</sup> [http://www.calguard.ca.gov/cajs-hs/58oes\\_links.htm](http://www.calguard.ca.gov/cajs-hs/58oes_links.htm). A listing of the 58 county Offices of Emergency Services.

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- <sup>3</sup> <http://healthyamericans.org>. State-by-state health emergency preparedness scores determined by the non-partisan Trust for America's Health.
- <sup>4</sup> <http://www.dhs.ca.gov/epo/EPOLinks.html>. A listing of the California local health jurisdiction bioterrorism sites.
- <sup>5</sup> <http://ready.gov>. The federal Department of Homeland Security highlights a new preparedness campaign focused on personal and business preparedness.
- <sup>6</sup> <http://www.goldenguardian.org>. The California State National Guard highlights the activities surrounding Operation Golden Guardian.

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