MED-P

A Manual for Medical Emergency Disaster Preparedness

DR. TOM STONER

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I would like to dedicate this book to my wife Sheila whose undying love and support have kept me focused on my patients and family. Thanks to my God for his grace and mercy and my family for their love and support.

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WHEN DISASTER STRIKES

September 11, 2001 rocked us as a nation, and for most of us, our lives were changed forever.

I remember it as though it was yesterday. I was making morning rounds in the hospital and listening to the news in a patient's room when I heard screams and gasps from patients and staff. Looking up, I saw the first of the twin towers of the World Trade Center hit by a jumbo jet, and I watched in disbelief as our safety was stripped from under us. We held each other, cried and even my father was in tears, something I don't think I ever witnessed. Still to this day, flying isn't one of my favorite pastimes.

After that day, we recalled the events of Cobar towers and the USS Cole. As Americans, it also didn't take us long to think back to the first failed attack on the World Trade Center in 1993, and we remembered our fellow citizens fleeing the buildings that were enveloped in black smoke. Now, on September 11, 2001, we watched thousands of our family, friends and fellow Americans vaporized before our eyes.

At the time, I was an Active Reserve Captain in the United States Air Force's (USAF) Medical Corps stationed at Willow Grove, Philadelphia. September 11 drove our "optempo" wild. I remembered our military police suddenly swept away and gone – and I mean gone – for extended tours of 18 to 36 months.

Immediately after September 11, we saw the first of many anthrax mail scares and many died of inhalation anthrax from Florida to Washington, D.C. Now, our antennas in the medical community were all up and constantly searching for what next. Sure, I had received NRBC (Nuclear, Radiological, Biological, and Chemical) training and actually was picked for special training at Fort Detrick, but none of us ever thought that we would actually have to use it.

We had all been vaccinated against anthrax and knew its lethality but, come on, was it really to be used as a bioweapon? Now we knew that the face of warfare had changed. The new face was not a face at all; it was an enigmatic ghost that hid anywhere and jumped out just when you thought you were the safest, in the USA and in your own home. We all changed in those days, and most became more vigilant and much less trusting.

['WHAT IF SOMETHING HAPPENED?']

What we as a people really did during those times was remember. We remembered our dead, mourned them, shed lots of tears, and we also remembered our past: how smallpox had been used on our brethren, the American Indian, and against the Colonial Army of George Washington; how we exposed our own servicemen, the Tuskegee Air Men, to syphilis; and the list, my friend, goes on and on. The list is so long, that its putrid stench is worse than a corpse in a hot house. Many of us now knew that our government couldn't control this type of warfare, and we all instinctively knew we had to do something ourselves. This is when "prepperism" really blossomed.

As time marched on, I became more concerned for our society, economy, and America. I started stocking some food and water supplies, and purchased a gun here and there. As the ensuing wars in Iraq and Afghanistan seemed to draw down, I think all of us realized that we were living in an ever-evolving America and one that we wanted to have more of a hand in, one where we at least felt some degree of control. Survival and prepper groups sprouted up, and early on, most may have been a little timid to state their affiliations. That timidity certainly changed with the hit series, "Doomsday Preppers." During this time, many of my patients started asking me about extra medication, like seizure, diabetic, and heart meds. They asked, "What if something happened and we couldn't get our meds?"

[A DEDICATION TO HELPING PEOPLE]

Certainly, profit margins for pharmacies had reduced, and stocks of medications had been reduced compared to decades ago. Many patients often complained of backordered meds. When Super Storm Sandy hit in 2012, some patients had to wait weeks to months to get meds shipped. This lack of service raised concern for me, and thus was some of the impetus that drove me to help provide a service to patients—a service that would help my patients in a time of need.

The prepper community embraced this, and with my military background and NRBC training, it birthed an idea, and eventually, a corporation. I truly love people and my desire had always been to help as many people, as much as I could, and give good solid medical doctrine to those who were searching for inspiration. I feel that my God-given gift is to help ferret out the fringe of what could harm one and bring clarity to what made good common sense.

My wife Sheila has been in nursing for 20 years, and she and I sat down and came up with common sense applications of medical importance during times of emergency. Sure, everyone had an emergency kit with an Ace wrap and bandages, but no one had a kit with actual prescription medications, instructions, and personal counsel regarding these materials. We also wished to put together a simple book to go with the products and offer a more in-depth user guide of disease states with their best treatments. The remainder of this book, or manual if you will, lays out medications and proper usage in a concise, straightforward fashion.

We hope this great reference is applicable when needed and offers you useful information in times of crisis.

Tom Stoner
June 2013

MEET DOCTOR T & SHEILA STONER

[DR. THOMAS STONER]

Dr. Thomas Stoner (known to his patients as Dr. T) has been practicing medicine since 1991 and is board certified in internal medicine. His service history in the United States Air Force (USAF) covers the decade from 1995-2005, where he received extensive training in the areas of NRBC (Nuclear, Radiological, Biological, and Chemical) warfare. He served as the lead consultant in the Northeast Reservist Smallpox Revaccination Program, was director of the Emergency Medical Technician Program in Utah, and has undergone training in various military disciplines and tactics, including Combat Casualty Care Course in Houston, Texas; NRBC warfare training at Fort Detrick in Frederick, Maryland; and Anthrax and Smallpox Vaccine Courses in Atlanta, Georgia. He possesses certifications in advanced and basic life support, advanced trauma life support, and pediatric advanced life support.

[SHEILA STONER]

Sheila Stoner, wife of Dr. Thomas Stoner, is an emergency room and certified forensic nurse.

Together, the couple possess a combined 45 years of experience in emergency room procedures and disaster medicine.

DISEASE STATES AND THE GEOGRAPHY OF DISASTER

Disaster preparedness begins with an understanding of warfare capabilities and how these can directly affect your health and the health of your loved ones. In this section, you'll learn about the differences among nuclear, radiological, biological, and chemical (NRBC) warfare and what you need to do now to prepare for these disaster scenarios.

[NRBC WARFARE NUCLEAR, RADIOLOGICAL, BIOLOGICAL, AND CHEMICAL]

[NUCLEAR]

Background

Nuclear includes any detonation of fission-type products or meltdown of a nuclear reactor which releases gamma, alpha, beta particles, and other toxic radionuclides. Three major physical traumas that occur from a nuclear detonation are: heat and burn (35 percent), shock/blast (50 percent), and radiation (15 percent). The difference between nuclear/fission detonation and dirty bomb-RDD [radiologic dispersal device] is that RDD produces mass hysteria due to the fear of radiation that occurs.

RDD is low level, usually less harmful radiation. Our government won't be able to calm the hysteria that ensues with this type of non-fissile explosion. True nuclear detonation, like hydrogen or atom bombs, causes absolute local destruction and radiation exposure that results in disease and death.

Nuclear weapons are a mortality multiplier and result in massive devastation within a 7-10 mile radius of ground zero, in seconds. A nuclear blast produces unparalleled devastation which results in retinal and skin burns, internal bleeding, bone marrow suppression, major trauma, cancers, and death. Two major topics to consider in a nuclear detonation event are geography/position to the event and amount of exposure to radiation. One needs to get out of the path of fallout and be knowledgeable about weather patterns and how they affect an individual's locale. If one is in close proximity to a nuclear detonation or is downwind from the impact site, the only option is to "bug-out." Geography of the disaster must be preemptive, and one needs to consider terrain and weather patterns where he or she lives.

Preparing for fallout requires potassium iodide tabs and antibiotics for those who will survive the immunosuppression from bone marrow radiation. Dirty bomb detonation doesn't produce significant radiation and therefore doesn't require potassium iodide or the necessity to "bug-out."

Radiation exposure from nuclear detonation affects four major body systems: gastrointestinal (GI), central nervous system (CNS), bone marrow/white blood cells (WBC), and thyroid. Effects on the GI system are mostly nausea, vomiting, and bloody diarrhea. If nausea and vomiting last greater than 72 hours, death will most likely ensue. CNS effects include seizure and confusion; again, the longer these effects last, the worse things will be. A low WBC count that persists for days is a dangerous sign, and one will need courses of antibiotics to avoid infection. Low WBC will also result in fungal and viral infections, especially herpes. Persons on long-term herpes suppression need to have 90–180 days of medicine on hand.

What You Need To Know

Thyroid protection needs to take place prior to fall-out exposure, needs to occur within six to 12 hours, and must be taken for 10-14 days thereafter. If one continues with radiation exposure, ongoing thyroid protection must continue, but long-term potassium iodide (KI) ingestion is not healthy.

KI comes in 130 mg tabs and should not be given to pregnant women, since it can leave the newborn with hypothyroid (underactive or non-active thyroid). Radioactive iodine is produced after a nuclear detonation and is absorbed by the thyroid gland, resulting in thyroid death and eventual thyroid cancer. Supplemental KI taken prior to radioactive iodine absorption protects the thyroid and blocks any radioactive iodine uptake.

Dosing should be as follows:

- *Pregnant women should not take potassium iodide; seek shelter*
- *Infants less than 1 month: 16.25 mg daily*
- *Infants 1 month to 3 years: 32.5 mg daily*

- *Children 3-12 years: 65 mg daily*
- *Children 12-18 years (less than 120 lbs): 65 mg*
- *Children (greater than 120 lbs) and adults: 130 mg daily*

Dosing should be for 10-14 days. Side effects of KI include nausea and vomiting, and one can take with dairy or an anti-nausea medicine like phenergan (12.5 mg–25 mg simultaneously). Phenergan can be taken an hour prior to taking the KI, which should reduce the side effects of nausea and vomiting.

Possible side effects of KI include:

- *Confusion*
- *Fatigue*
- *Nausea*
- *Vomiting (most common)*
- *Diarrhea (most common)*
- *Rash*
- *Allergic reaction*
- *Weakness*
- *Wheezing*
- *Death*

[RADIOLOGIC]

Background

Dirty bombs or RDDs contain low-level nuclear or medical waste, are combined with conventional explosives, and detonated, causing local death from explosion and then secondary low-level radiation (a scenario that usually causes great hysteria but not radiation-related death or cancer). The advantages of dirty bombs lie in their availability; they are less expensive and still capable of producing mass hysteria, resulting in death and martial law.

Over 7,000 shipments of nuclear waste material are shipped annually in the USA. Some 200 of these shipments go unaccounted for annually (effectively, LOST). Many terrorist organizations are in pursuit of obtaining these shipments.

What You Need To Know for Radiation Exposure

- *Take KI 6 hours prior to radiation exposure*
- *Remove exposed clothing and wash with soap and water, then discard clothing*
- *Radioactive clothing, shrapnel, or any contaminated materials should be buried hundreds of feet away from your residence*
- *Remove any radiologic shrapnel which can cause radio-necrosis and discard*
- *Avoid direct exposure, cover windows, and stay underground if possible or in a basement*
- *Avoid downwind exposure*
- *Antibiotics*
- *Anti-nausea meds*
- *Anti-fungals and anti-virals*

[BIOLOGIC]

Background

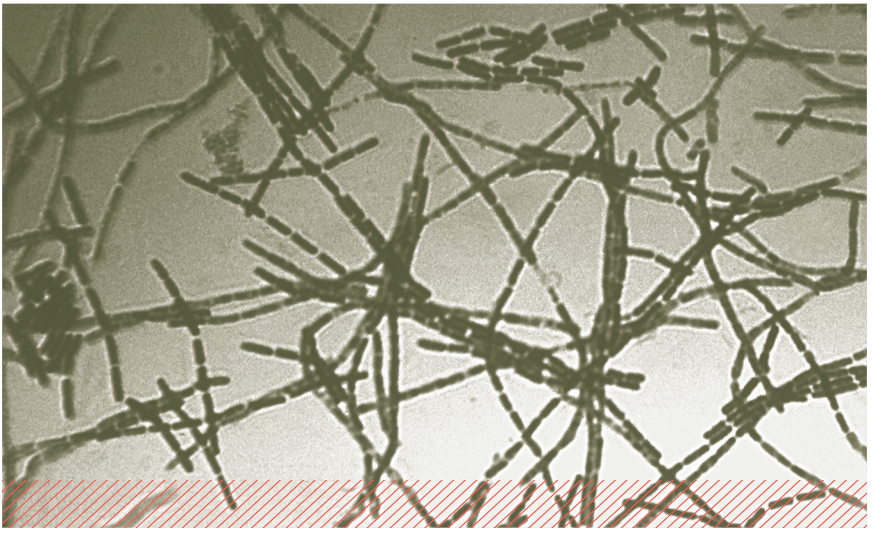
Biologic threats consist of bacteria, viruses or agroterrorism, like hoof-and-mouth disease.

Common military and civilian concerns are anthrax, smallpox, SARS, flu/H7N9, and hoof-and-mouth disease, which affects cloven-hooved animals like cattle, etc.

What You Need To Know

Bacteria and viruses produce either infections or toxins that cause direct or indirect cell death. In most cases, patients need supportive care and or antibiotic treatment.

Most biologic threats result in severe, life threatening infection and death rates of 30 to 99 percent. Many of these bacteria and viruses have existed for millennia and have nearly wiped out man's existence, ranging from the plague to the Spanish flu of 1918.



[ANTHRAX]

Background

Anthrax is a spore-forming bacteria that has been on this planet for hundreds of thousands of years. It is found in most soils, easily weaponized, and dispersed for inhalation as a bioweapon.

There are three main types of infection related to anthrax: skin, gastrointestinal (GI), and lung/or pulmonary. Pulmonary anthrax is the major concern and is 99 percent lethal. Anthrax is known as the poor man's nuke and historically was known to the veterinary community and mostly infected wool sorters' hands and veterinarians.

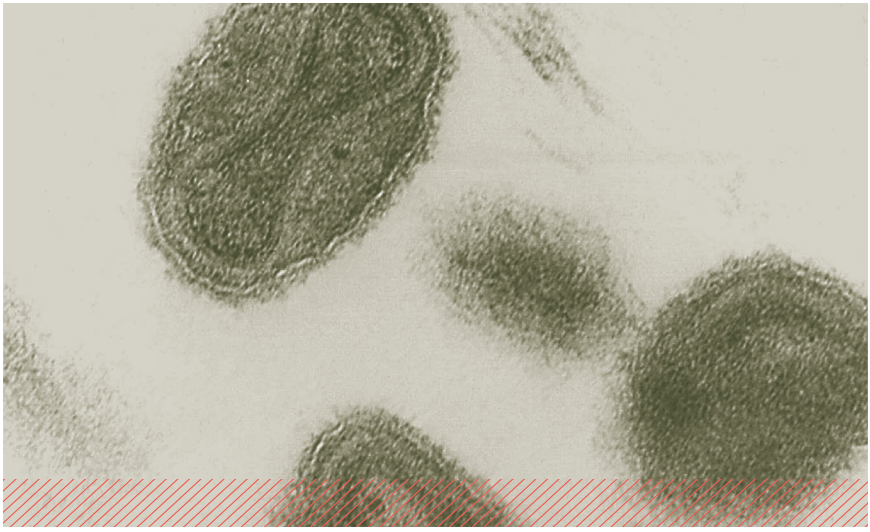
Anthrax has been weaponized for decades. Two hundred pounds dispersed from a small plane could kill 3 million – yes, 3 million people and animals. It is not contagious person to person, but lethal if inhaled and is 99 percent fatal if not treated immediately. Anthrax is cheap to obtain and most countries have it stockpiled, making its potential for use moderate to high. Symptoms of Inhalation Anthrax include: Flu-like illness, fever, cough, progressive pneumonia and death within days.

A vaccine exists, but the series is a six-shot sequence and takes 18 months. N95 masks would stop inhalation, but a downwind risk can exist for up to six weeks after its dispersal. Ciprofloxacin is the drug of choice, but doxycycline and penicillin are effective unless strains are resistant. The length of treatment is 60 days, for all exposures.

Again, grave catastrophic potential exists if used.

What You Need To Know

Although anthrax is not contagious (cannot be spread from person-to-person contact), its lethality is near absolute if not treated. Antibiotic treatment consists of 500 mg of Ciprofloxacin, two times a day for 60 days. As noted above, a vaccine exists but it requires six doses over an 18-month period. People who live in congested high-risk areas should have N95 masks and a bug-out plan.



[SMALLPOX]

Background

This respiratory virus has existed for millennia and is spread through direct contact from person to person. It starts as a respiratory infection with fever, then spreads to the skin and causes large pox marks that are contagious and disfiguring. The smallpox death rate is 30 to 50 percent, a rate that would clog our medical system due to its contagiousness. There is no cure, and immune globulin won't be available during a bio-warfare event. Modern-day concerns include an older population and an immunosuppressed population. Both of these factors increase the risk of larger numbers of infections and deaths.

Its potential for use is moderate and grave catastrophic potential exists if used.

Smallpox is very contagious from person to person, and isolation and vaccination are the only ways to slow the disease progression and eradicate it. Exposed clothing and diseased corpses must be burned.

What You Need To Know

Smallpox has a lethality of approximately 30-50 percent, is highly contagious, and has no treatment available. A vaccine is available but requires at least two to four weeks to be absorbed into the human body. Those who are near an outbreak need to be quarantined for 14 days and otherwise avoid congested areas.

[SARS AND INFLUENZA – H7N9]

Background

Are all respiratory viruses and are spread from person to person. The flu vaccine has a 70 percent effectiveness rate. These viruses, and others like them, are relatively contagious and may have up to a 60 percent mortality rate. Anti-viral meds exist, but in a pandemic, they won't be available, and resistance to the viruses develops quickly. Treatment for these viruses are with fever meds, supportive care, and isolation. A fever greater than 101 degrees F. should be treated, as an increased heart rate, dehydration, and seizure can occur with untreated fever. I advocate treating fever early to keep temperature in a controllable range.

The medical community's position on potential respiratory calamities stems around a "not if, but when" mentality.

Antibiotics for pneumonia need to be kept on hand since bacterial pneumonia often develops 7–14 days after influenza infection.

DISASTER PREPARATION BEGINS TODAY

September 11, Hurricane Katrina, Super Storm Sandy, the 2013 Boston Marathon bombings and many other natural and man-made disasters have destroyed the homes and lives of hundreds of thousands of Americans. As we've pointed out throughout this book, the key to handling disasters is mental and physical preparedness. It is our hope that the information presented in this book prepares, rather than scares, you into thinking about how you would react and what you would do in the event of a disaster. Disaster preparedness is not something that happens in a vacuum nor should it happen in the zero hour—at this point, it will be too late.

We encourage you to discuss your concerns with your primary care provider. Your primary care provider may help you in times of medical emergency disasters.

To assist you in your disaster preparations, we've created Doctor T's Medical Survival Kit containing essential medicines and resources you'd need in the event disaster strikes. To order a kit, contact TSSP, Inc.:

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