



EMERGENCY PREPAREDNESS RESOURCES FOR PHARMACISTS

This document provides guidance for pharmacists interested in exploring opportunities in emergency preparedness. It includes a compilation of Web sites, articles, online training and general recommendations to assist the committed pharmacist in independently navigating some of the various resources available and achieve their goals of becoming more knowledgeable, competent and better prepared to play a contributory role when called upon in an emergency situation.

Completion of some or all of the listed articles and training courses will provide a good baseline of understanding of emergency preparedness and the various roles a pharmacist can play in a successful response effort. In addition to these educational opportunities, it is strongly recommended that you complete the Incident Command Systems (ICS) 100 and 200 level trainings and register as a pharmacist on the Michigan Volunteer Registry.

A strong pharmacy presence on the Michigan Volunteer Registry is an added indication that pharmacists are interested in being part of the plan, and therefore an integral part of the solution in the event that a crisis occurs. Registration on this site also ensures that when an exercise is being planned in your community, event planners have a mechanism to reach out to you and other interested pharmacists for assistance in the planning and implementation of the exercise. Knowledge of the ICS precepts will help ensure that you will be more seamlessly integrated into that response effort when it's initiated. It is the command and control language used by all response agencies today, and we need to become more familiar with the structure and nomenclature of the ICS in order to become a contributing partner in emergency response efforts.

1. **Online Educational Programming Opportunities**

Complete these self-study programs at your convenience. They will help you gain an understanding of the many types of crisis events that must be planned for, and the role that you as a pharmacist will play.

- **CDC Learning Connection:** The Centers for Disease Control and Prevention (CDC) provides a learning connection center to help locate products and resources from across the public health community. Access it online at www.CDC.gov/Learning
- **Michigan's MEDDRUN, CHEMPACK and Strategic National Stockpile (SNS) Programs Training Module:** This learning module will provide introductory level information about Michigan's MEDDRUN, CHEMPACK and Strategic National Stockpile (SNS) Programs. Access the course, ID 1031785, online at <http://tinyurl.com/93pyabe>.
- **Michigan CHEMPACK Program Training Module:** This learning module will provide an intermediate level of information about the Michigan CHEMPACK program, agency roles, nerve agent exposure treatment options, and additional responder/provider information.. Access the course, ID 1019144, online at <http://tinyurl.com/8tezuu8>.

- **Resource Center for Bioterrorism Training and Curriculum Development Program:** This program serves as a functional repository available to the public for educational materials on disaster preparedness. Access it online at <http://library.scahec.net>.
- **Yale New Haven Health – Center for Emergency Preparedness and Disaster Response:** Yale New Haven Health offers a series of online courses on emergency preparedness topics for hospital, health care and public health workers. Access it online at <http://ynhhs.emergencyeducation.org>.
- **Introduction to the Strategic National Stockpile for Volunteers:** This course is an introduction to the Strategic National Stockpile (SNS) program, its functions, and the key volunteer roles. Access the course, ID 1018091, online at <http://tinyurl.com/k5m4xu9>.
- **Centers for Disease Control and Prevention – Emergency Preparedness and Response:** This is a series of videos teaching the key topics and basics surrounding radiation. Access it online at <http://emergency.cdc.gov/radiation/radbasics.asp>.

2. Incident Command Systems (ICS) Training

Knowledge of the precepts of incident command is essential to any person involved in disaster response. This organized approach to response allows all responders to work under pre-established guidelines of command and communication that help ensure an organized and successful response effort. These programs are free, and can be completed through the following Federal Emergency Management Agency (FEMA) Independent study Web site addresses:

- <http://training.fema.gov/EMIWeb/IS/is100HCb.asp>
- <https://training.fema.gov/is/courseoverview.aspx?code=IS-200.c>
- <https://training.fema.gov/is/courseoverview.aspx?code=IS-700.b>

The first two programs listed are specifically designed for health care institutions. ICS 700 is an introduction to the *National Incident Management System* (NIMS). Following successful completion of each program, a certificate can be printed and saved to show successful completion of these



programs.

3. Basic Disaster Life Support (BDLS) Training

This is a comprehensive, nationally-standardized family of all-hazards training programs developed by the National Disaster Life Support Foundation (NDLSF) consortium of academic, state and federal centers. This is an eight-hour didactic course designed to develop commonality of approach and language to improve the care and coordination of response in Weapon of Mass Destruction (WMD) disasters and public health emergencies. Programming is offered by the various bio-defense regional organizations at various times during the year. Access to your regional contact can be provided by your MPA Emergency Preparedness Coordinator. Access information on BDLS training online at www.NDLSF.org.

4. Michigan Volunteer Registry

The MI Volunteer Registry was launched January 2006 by the Michigan Department of Community Health Office of Public Health Preparedness. A growing list of willing volunteers from the state of Michigan and out-of-state border counties is currently being maintained. Advance registration by health care providers on this site allows emergency authorities access to qualified and credentialed personnel that may be needed in the event of an emergency. Registration on this site does not obligate you to respond during an emergency. Registration allows planners to offer you a chance to participate in drills and exercises within your own community so that you have an opportunity to learn experientially what your role may be in the event of an emergency. Access the registry online at <https://www.MIvolunteerregistry.org>.

5. Medical Reserve Corps

Being on a sustained volunteer medical team allows you to stay engaged and have more access to training and educational opportunities. The Medical Reserve Corps (MRC) is a national network of local groups of volunteers committed to improving the health, safety and resiliency of their communities. Access more information online at <https://mrc.hhs.gov/HomePage>. Click on “Volunteer,” enter your zip code, select a unit near you, and submit your contact information to enroll.

6. Pandemic Flu Planning

- Centers for Disease Control and Prevention (CDC): www.CDC.gov/flu
- Immunization Action Coalition (IAC): www.Immunize.org
 - Subscribe for access to online newsletters with timely vaccination information, including influenza vaccine issues.
- Michigan Department of Health and Human Services (MDHHS): www.Michigan.gov/flu
- U.S. Department of Health and Human Services (HHS): www.PandemicFlu.gov

7. General Web sites of Interest

- **Johns Hopkins Bloomberg School of Public Health:**
 - Online training courses for chemical, biological, radiological or nuclear terror events. Access the courses online at www.jhsph.edu/preparedness/training/online/index.html
- **Disaster Information Management Resource Center (DIMRC):**
 - The core purpose of the DIMRC is to develop and provide access to health information resources and technology for disaster preparedness, response and recovery. They connect people with quality disaster health information and foster a culture of community resiliency. Visit <http://disasterinfo.nlm.nih.gov> for additional information.
- **Agency for Healthcare Research and Quality:**
 - Sign up to receive Emergency Preparedness e-mail updates. Access the site at <http://archive.ahrq.gov/prep>. It also includes the following documents of interest:
 - Altered Standards of Care in Mass Casualty Events

- Community-Based Mass Prophylaxis: A Planning Guide for Public Health Preparedness
- Mass Medical Care with Scarce Resources: The Essentials
- **Centers for Disease Control and Prevention (CDC) – Emergency Preparedness and Response:** This site lists all possible agents and CDC response recommendations. This should be the first site you always access, and it is strongly recommended that you become familiar with the navigation of this site. Access it online at [www.BT.CDC.gov](http://www.bt.cdc.gov).
- **CDC Morbidity and Mortality Weekly Report (MMWR):** Sign up to receive e-mail updates from MMWR, which includes yearly influenza recommendations as well as many other resources as listed. Access it online at www.CDC.gov/mmwr/about.html.
- **University of Pittsburgh Medical Center (UPMC) Center for Biosecurity:** This site sends daily articles via e-mail that provide good current bioterrorism information, links to other sites of interest, etc. Access it online at www.UPMC-Biosecurity.org.
- **Radiation Emergency Medical Management:**
The goals of the site are to:
 - Provide guidance for health care providers, primarily physicians, about clinical diagnosis and treatment of radiation injury during radiological and nuclear emergencies
 - Provide just-in-time, evidence-based, usable information with sufficient background and context to make complex issues understandable to those without formal radiation medicine expertise
 - Provide web-based information that is also downloadable in advance, so that it would be available during an event if the internet is not accessible

Access it online at www.REMM.NLM.gov.

- **Chemical Hazards Emergency Medical Management:**
The goals of this site are to:
 - Enable first responders, first receivers, other health care providers and planners to plan for, respond to, recover from, and mitigate the effects of mass-casualty incidents involving chemicals.
 - Provide a comprehensive, user-friendly, web-based resource that is also downloadable in advance, so that it would be available during an event if the internet is not accessible.

Access it online at <http://CHEMM.NLM.NIH.gov/index.html>.

8. Articles of Interest

- *Journal of the American Medical Association (JAMA) series*
The Working Group on Civilian Biodefense has developed several consensus-based recommendations for measures to be taken by medical and public health professionals if any CDC category A biologic agents listed below are used against a civilian population:
 - Anthrax as a biological weapon (Inglesby, T.V., et al., *JAMA*, 2002, 287, pp. 2236-2252).

- Botulinum toxin as a biological weapon (Arnon, S.S., et al., *JAMA*, 2001, 285, pp. 1059-1070).
- Hemorrhagic fever viruses as a biologic weapon (Borio, L., et al., *JAMA*, 2002, 287, pp. 2391-2405).
- Plague as a biological weapon (Inglesby, T.V., et al., *JAMA*, 2000, 283, pp. 2281-2290).
- Smallpox as a biological weapon (Henderson, D.A., et al., *JAMA*, 1999, 281, pp. 2127-2137).
- Tularemia as a biological weapon (Dennis, D.T., et al., *JAMA*, 2001, 285, pp. 2763-2773).

Access the articles online by searching at <http://JAMA.JAMAnetwork.com/journal.aspx>. A subscription may be required.

9. Reference Books

- *PDR Guide to Terrorism Response* (Montvale, N.J., Thomson, P.D.R., 2005).
 - This is a good comprehensive reference with sections covering biologic agents, chemical agents, radiological incidents and medical management.
- *Biological and Chemical Terrorism* (Krenzelok, E., Bethesda, M.d., American Society of Health-System Pharmacists, 2003).
 - This book contains many informative articles, including the *JAMA* articles listed above.

10. Disaster Response Mobile Apps

- **Wireless Information System for Emergency Responders (WISER):** Available from the National Library of Medicine (NLM), this resource assists first responders in Hazmat incidents, with features including substance identification support, containment and suppression advice, and medical treatment information.
- **Radiation Emergency Medical Management (REMM):** Available from the NLM, this resource provides guidance about clinical diagnosis and treatment of radiation injuries during radiological and nuclear emergencies.

11. Experience

Nothing will teach you the value and expertise that you will bring as a pharmacist in response to a crisis event like participation in an exercise or drill. Make every effort to attend and participate in any exercise opportunity that is offered to you. This will not only help guide you in your preparedness training, but will allow you to build contacts and develop relationships with other decision makers. If you are employed by a hospital or health care system in the state of Michigan, volunteer to attend meetings of your Regional Bio-defense Network Hospital Pharmacy Workgroup. This is the group that works at a regional level to develop and maintain pharmaceutical caches, and other pharmacy-related emergency preparedness plans.