Spotlight! on NLM Resources: Toxicology
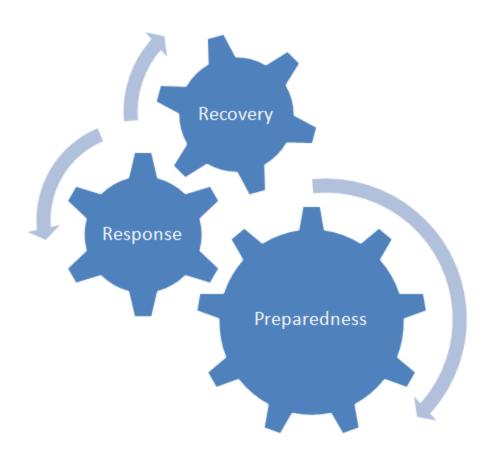
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NN/LM

National Network of Libraries of Medicine
MidContinental Region

Colorado ⋆ Kansas ⋆ Missouri ⋆ Nebraska ⋆ Utah ⋆ Wyoming

Objectives for Today's Session

- Identify authoritative NLM toxicology and related medical resources for emergency planning and response

- Demonstrate the ability to perform search techniques to find relevant online information

- Consider ways to apply the skills and knowledge obtained in this session to forging partnerships in the community

Disaster Life Cycle

Recovery

Response

Preparedness

Information is needed at each stage

NLM's Disaster Information Management Research Center (DIMRC)

- Organize the disaster health literature

- Provide access to the literature

- Develop information tools

- Maintain library operations

- Conduct research and development

- DIMRC factsheet @ http://www.nlm.nih.gov/pubs/factsheets/dimrcfs.html

http://disasterinfo.nlm.nih.gov/

PubMed

- **Target audience: everyone**
- Over 50,000 references to journal articles on disaster/emergency preparedness and response
- 7 Disaster Medicine specific journals indexed
- 15 Emergency Medicine journals indexed
- PubMed trifolds @ http://nnlm.gov/training/resources/pmtri.pdf and http://nnlm.gov/training/resources/intlpubmedlinks.html

http://www.ncbi.nlm.nih.gov/pubmed/

Emergency Access Initiative

- **Target Audience: Health care workers, public health workforce, librarians**
- Provides free access to full-text articles from over 230 biomedical titles and over 65 reference books for areas affected by disasters (via PubMed)
- Available to those affected by the disaster and for those providing assistance to the affected population
- Serves as a temporary collection replacement and/or supplement for libraries affected by disasters that need to continue to serve medical staff and affiliated users
- Designed to help medical personnel and libraries cope with disasters
- Past activations: Japan earthquake/tsunami, Haiti earthquake, Gulf oil spill, Pakistan floods
- Activation notices @ http://eai.nlm.nih.gov/docs/captcha/test.pl?url

http://eai.nlm.nih.gov

Resource Guide for Public Health Preparedness

- **Target Audience: public health workforce, librarians**
- Partnership with the New York Academy of Medicine
- Grey literature sources
- Searchable databases

http://phpreparedness.nlm.nih.gov/

PHPartners

- **Target audience: public health workforce, librarians**
- Information on bioterrorism, dental public health, environmental health, nutrition, veterinary public health, HIV/AIDS
- Assist in finding and using information effectively to improve and protect the public's health
Increase the information literacy of the public health workforce
- Organizes and delivers public health resources so they are easier to find and use
- Identifies and develops collaborative projects to meet the information needs of the public health workforce
- Increases the visibility of the partnership with librarians and the public health workforce
- PHPartners factsheet @ http://www.nlm.nih.gov/nno/partners.html

http://phpartners.org/

Environmental Health and Toxicology Portal

- **Target audience: environmental health professionals, toxicologists, emergency responders, community groups, and the general public**
- Locate resources by audience
  - Researchers, scientists, educators, students, emergency responders, health professionals, public
- Locate key topics
  - Environmental justice, crude oil spills, climate change, pesticides, lead, air quality, and more!
- Links to drugs and dietary supplements information
- Guide to selecting the appropriate resources based on your information need
- Portal fact sheet @ http://www.nlm.nih.gov/pubs/factsheets/tehipfs.html

http://sis.nlm.nih.gov/enviro.html

TOXNET

- **Target audience: environmental health professionals, toxicologists, emergency responders, community groups, and the general public**

- Collection of toxicology, hazardous chemicals, environmental health, and toxic releases databases

- Search for chemicals, drugs, household products, radiological agents, biological agents, hazardous materials simultaneously

- TOXNET brochure @ http://disaster.nlm.nih.gov/outreach/Toxnet_2010.pdf

http://toxnet.nlm.nih.gov/

Hazardous Substances Databank (HSDB)

- **Target Audience: broad audience of health, safety, and first response personnel**
- Comprehensive, peer-reviewed toxicology data for about 5,000 chemicals
- Focuses on the toxicology of potentially hazardous chemicals
- Information on human exposure, industrial hygiene, emergency handling procedures, environmental fate, regulatory requirements, nanomaterials, and related areas
- Data are referenced and derived from a core set of books, government documents, technical reports and selected primary journal literature
- Peer-reviewed by the Scientific Review Panel
- HSDB fact sheet @ http://www.nlm.nih.gov/pubs/factsheets/hsdbfs.html

http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?HSDB

Scenario

An environmental scientist is interested in examining current information on how *ethylene glycol* behaves in the environment based on the chemical's physical properties.

Wireless Information System for Emergency Responders (WISER)

- **Target audience: first responders, Hazmat specialist, EMS specialists**
- Key hazardous substances information for emergency responders tailored to their role
- Identify unknown chemicals based on physical properties and human exposure symptoms
- Chemical reactivity – find out what happens when chemicals mix
- Triage tools for emergency handling procedures, GIS protective distance mapping, and environmental impact
- Peer reviewed information on over 4,700 critical hazardous substances
- Downloadable to PDAs, Apple iPhone, iPod Touch, Blackberry, Palm OS, Windows mobile devices, or access via web browser
- WISER factsheet @ http://disaster.nlm.nih.gov/outreach/Toxnet_2010.pdf

http://wiser.nlm.nih.gov/

Scenario

You are the Hazardous Materials Specialist responding to an incident at a warehouse. The warehouse has been cleared and the situation has been stabilized. Your primary task is to identify the substance and provide information and recommendations to the Incident Commander.

The substance in question has been leaking from an unmarked barrel. It has been described as a colorless liquid with an alcohol smell. The workers from the warehouse are showing the following symptoms: nausea, dizziness, headache, eye irritation, and low body temperature.

http://wiser.nlm.nih.gov/

Radiation Emergency Medical Management (REMM)

- **Target audience: physicians, emergency responders, mental health providers**
- Guidance on clinical diagnosis and treatment of radiation injury during radiological and nuclear emergencies
- Evidence based information understandable to those without formal radiation medicine expertise
- Triage guidelines for contamination and exposure
- Management of mass casualties, psychological issues, and at-risk/special needs populations
- Downloadable to iPhone/IPod touch, Android, Blackberry, Windows Mobile

http://www.remm.nlm.gov/

Scenario

You are on call today at the hospital when notification arrives that there has been a radiological event with possible exposure. The first patient to arrive indicates vomiting around 7:30am. Emergency responders estimate the event occurred at 6:30am.

Using REMM, determine the radiation dose. Name one suggested treatment.

http://www.remm.nlm.gov/

Toxics Release Inventory (TRI)

- **Target audience: city planners, emergency planners, public**
- Annual estimates of toxic chemical releases covering air, water, land, and underground injection from 1987-2009
- Source reduction and recycling information from 1990 to present
- TRI fact sheet @ http://www.nlm.nih.gov/pubs/factsheets/trifs.html

http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?TRI

TOXMAP

- **Target audience: environmental health, consumers**
- Visually explore data from the EPA TRI and Superfund Program
- Map nationwide, regional, or local maps showing on-site releases in the air, water, and ground
- Overlay with census data, income figures, and health data
- Sites locations rely on geocoding assignments of latitude/longitude
- Toxmap brochure @ http://toxmap.nlm.nih.gov/toxmap/home/TOXMAP_Brochure.pdf

http://toxmap.nlm.nih.gov/toxmap/main/index.jsp

Scenario

What TRI facility in EPA Region 8 released the most chemicals on site in 2008? What were the top five chemicals released by that facility in 2008?

Haz-Map

- **Target Audience: health and safety professionals, consumers**
- Information on over 4,500 job-related chemical and biological agents
- Links jobs and hazardous tasks with occupational diseases and their symptoms
- Information compiled from occupational medicine textbooks, journal articles, and electronic databases
- Haz-Map brochure @ http://hazmap.nlm.nih.gov/635906-brochure.pdf

http://hazmap.nlm.nih.gov/

Scenario

What are some of the agents, jobs, and diseases associated with asthma?
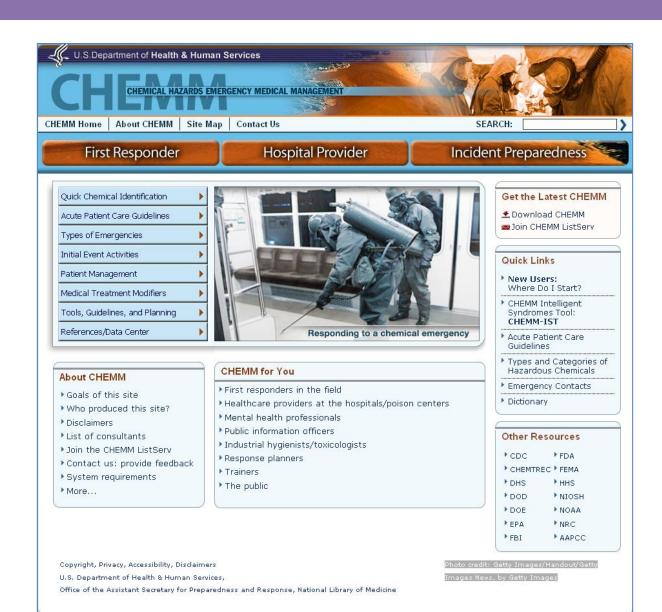
http://hazmap.nlm.nih.gov/

Household Products Database

- **Target Audience: scientists and consumers**
- Provides potential health effects of more than 10,000 common household products
- Contains manufactures' brand-specific chemical properties of a product
- Browse by product category or alpha listing of brand names
- Search by product ingredient/chemical name and health effects
- Information on proper handling and disposal of products
- HPD flyer @ http://disaster.nlm.nih.gov/pdf/householdproductsdatabaseflyer.pdf

Chemical Hazards Emergency Medical Management (CHEMM)

- **Target audience: first responders, healthcare providers, mental health professionals, public information officers, industrial hygienists/toxicologists, response planners, consumers**
- Currently under development – Summer 2011 release
- Plan for, respond to, recover from, and mitigate the effects of a mass-casualty incident involving chemicals
- Intelligent syndromes tool
- To be used for training, planning and response

http://chemm.nlm.nih.gov/

Advanced Look

Social Media

- Follow NLM on Twitter

- Fan NLM on Facebook

- Subscribe to NLM RSS

- Create your own feed of favorite PubMed searches

- Join an email list to stay current with health topics and NLM

http://www.nlm.nih.gov/socialmedia/index.html

Resources

- Getting the Most from SIS's Environmental Health and Toxicology Resources
http://sis.nlm.nih.gov/getthemostfromsis.html
- NLM's Environmental Health and Toxicology Resources Quick Tour
http://sis.nlm.nih.gov/enviro/captivate/tehipoverview.htm
- Publications and Reference Materials
http://sis.nlm.nih.gov/enviro/enviropubs.html
- NLM Toxicology Tutorials
  - http://sis.nlm.nih.gov/enviro/toxtutor.html

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MLA CE

COMPLETE BOTH BY: Wednesday - July 8, 2011

- Class Evaluation @
  https://www.surveymonkey.com/s/LLVKYBH

- MLA CE link @
  https://www.surveymonkey.com/s/L8PW6W3