



DISASTER PREPAREDNESS and UNINTERRUPTIBLE POWER SUPPLIES

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The fee for this continuing education test is \$20. This CE test covers all material in the Cover Story section.

The Cover Story and Clinical Issues published in this month's *MLO* are peer-reviewed.

Cover story objectives and the CE questions approved and/or written by Jeanne M. Isabel, MEd, CLSPH(NCA), associate professor at the School of Allied Health Professions in the College of Health and Human Sciences, Northern Illinois University, DeKalb, IL.

CE QUESTIONS

- Poor-quality or inoperable communications equipment contributed to 343 firefighters' deaths during Sept. 11.**
 - TRUE
 - FALSE
- According to the author of "The Great Influenza," one reason that "surge capacity" at hospitals during a flu pandemic would be difficult is**
 - lack of enough qualified hospital personnel.
 - lack of enough appropriate medications in sufficient quantities.
 - lack of sufficient numbers of hospital beds.
 - just-in-time operations and supply-chain interruptions.
- According to Dr. Poutanen, response to the SARS outbreak in Canada provided which of the following lessons:**
 - having a preparedness plan is better than responding in real time.
 - having mandatory annual biosafety training.
 - preparing for increased testing demands.
 - all of the above.
 - none of the above.
- The National Earthquake Information Center reports how many earthquakes yearly?**
 - 1,000 to 5,000
 - 6,000 to 7,000
 - 9,000 to 11,000
 - 12,000 to 14,000
- The 1994 earthquake in Southern California resulted in which of the worst aspect(s) of the disaster at Northridge Hospital Medical Center laboratory?**
 - Lack of electricity to operate air conditioners
 - Overturned blood-bank refrigerators and analyzers
 - Lack of water and instruments falling off countertops
 - Failure to have provisions to send specimens to referral labs or hospitals
- One aspect of disaster-preparedness planning that may be overlooked in a hospital/laboratory is**
 - a mass-fatalities plan.
 - provision of emergency generators.
 - provision of cots for employees for 24/7 operations.
 - none of the above.
- In some cases, disaster/emergency planning is an underdeveloped asset, in part, because of a lack of a communal belief that "it" could happen here.**
 - TRUE
 - FALSE
- In the 7th annual *Ready or Not? Protecting the Public's Health from Diseases, Disasters, and Bioterrorism* report, how many states received points on all 10 indicators?**
 - None
 - Eight
 - 14
 - All 50 states
- According to the director of The National Center for Disaster Preparedness, America's "Achilles' heel" of disaster planning concerns which infrastructures?**
 - Airport, seaport
 - Education, healthcare
 - Transportation, communications
 - None of the above.
- During the flu epidemic of 1918-1919, the rapid spread of the disease was *not* attributable to people's indifference.**
 - TRUE
 - FALSE
- The basic uninterruptible power supply (UPS) types include**
 - off-line.
 - line interactive.
 - on-line.
 - all of the above.
- The true advantage to the on-line UPS is its ability to provide**
 - an electrical firewall between incoming utility power and sensitive lab equipment.
 - bare-bones surge protection and battery backup.
 - acceptable output voltage to the connected equipment during brown-out conditions.
 - none of the above.
- Which UPS can provide the level of voltage regulation and power protection required by sensitive lab equipment?**
 - Line interactive
 - Off-line
 - On-line
 - In-line

14. Power-line problems often are caused by snow and ice storms, hurricanes, tornadoes, and flooding, as well as
- accidents due to construction.
 - vehicles downing utility poles.
 - a ripple effect on the power grid from an event 1,000 miles away.
 - all of the above.
 - none of the above.

15. After Hurricane Katrina hit New Orleans in 2005, new regulations were issued to specify installation of backup generators

- below the hospital's ground level.
- in a special room near the main entrance of the hospital.
- on the hospital roof.
- in the maintenance area of the hospital.

16. What is one common problem with clinical laboratory UPS units?

- Improper selection of UPS type
- No battery-testing plan or program
- Improper UPS installation that does not allow for proper cooling
- All of the above
- a and b only

17. Batteries should be replaced in the UPS unit when the battery runtime reaches what percentage of the installed runtime test?

- 80%
- 60%
- 40%
- 20%

18. Maintaining vaccines in a proper refrigerated environment is not necessary in underdeveloped countries.

- TRUE
- FALSE

19. If lab equipment is connected to an on-line UPS through which it receives optimum power and voltage, the equipment accuracy, performance, and reliability are assured, irrespective of the utility or lab outlet-power quality.

- TRUE
- FALSE

20. Falcon Electric UPS products were used to protect and back up the DNA sequencing equipment used for the Microbial Genome Project.

- TRUE
- FALSE

TEST ANSWER FORM

CE Test on DISASTER PREPAREDNESS and

UNINTERRUPTIBLE POWER SUPPLIES January 2010

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