Frequently Asked Questions for Health Care Facilities concerning Radiation Impact from Japan’s Nuclear Emergency

March 18, 2011

The Nuclear Regulatory Commission (NRC) advises that Japan’s nuclear emergency presents no danger to California at the present time. The California Department of Public Health (CDPH) is working closely with State and federal partners, including NRC, U.S. Environmental Protection Agency, the U.S. Department of Energy, Federal Emergency Management Agency (FEMA), and the California Emergency Management Agency (Cal EMA). If the situation changes, CDPH will provide updates to the information provided below.

Q. What are the symptoms of Acute Radiation Syndrome (ARS)?
A. At present, the NRC indicates Japan’s nuclear emergency does not present radiation danger to Californians. Therefore, it is not expected that Californians will exhibit symptoms of ARS. Returnees and visitors from Japan are also not expected to exhibit ARS symptoms due to the high levels of radiation necessary to cause ARS.

ARS is a serious illness that occurs when the entire body (or most of it) receives a high dose of radiation, usually over a short period of time. The first symptoms of ARS typically are nausea, vomiting and diarrhea. People with ARS typically also have some skin damage. The damage can start to show within a few hours after exposure; symptoms include swelling, itching, and redness of the skin (like a bad sunburn). In addition, there can be hair loss. The symptoms will start and last within minutes to days after the exposure, and may come and go.

Q. What should hospitals do if they receive patients complaining of radioactive contamination?
A. Since there is no risk of radiation illness or significant contamination to patients or health care facility staff at this time, the approach should be reassurance and good communications. If this is not successful, mental health staff should be engaged. If the situation changes, CDPH will notify health care facilities and provide additional guidance.

If a patient calls with concerns about contamination, health care staff may advise the patient to shower and change clothes. This is also the first approach to patients presenting to the emergency department after being exposed to radioactive contamination from local sources. Further assessment of a patient with potential
exposure to harmful doses of radiation would involve, at a minimum, symptom review, examination of skin for radiation burns, and a blood count.

Q. What steps should hospitals take to protect workers from contaminated patients?
A. It is not expected that hospitals will receive patients contaminated by radioactive material. Travelers coming from Japan to California would trigger an alarm at the airport if they were contaminated by radioactive material and would be further evaluated at the airport. Therefore, it is unlikely that any measures beyond standard precautions and procedures are needed to protect health care professionals and other hospital workers. Hospitals concerned about radioactive contamination should consult their internal emergency plans and procedures.

Q. What are the possible side effects of consuming potassium iodide (KI)?
A. Potassium iodide tablets are not recommended at this time in response to the nuclear power plant explosions in Japan and can cause problems to people with allergies to iodine, shellfish or who have thyroid problems. Potassium iodide tablets should not be taken unless directed by public health or medical authorities. Possible but rare side effects of consuming potassium iodide include fever and joint pain, swelling of face and body, trouble breathing, speaking or swallowing and shortness of breath. An overdose of potassium iodide may cause abdominal pain and diarrhea.

Q. Where do hospitals obtain potassium iodide if it becomes needed?
A. As indicated above, potassium iodide tablets are not recommended at this time in response to the nuclear power plant explosions in Japan. If necessary in response to a local radiologic event or a patient’s individual medical need, hospitals should use their normal supply chain to obtain potassium iodide. Should vendors be unable to fill requests, hospitals should contact their Medical Health Operational Area Coordinator (MHOAC) for assistance.

Other Resources for Additional Information:
• CDPH Information Line: (916) 341-3947 Monday - Friday, 8 a.m. - 5 p.m. Pacific Daylight Time
• Centers for Disease Control and Prevention (CDC): 1-800-CDC-INFO (1-800-232-4636), Seven days a week, 24 hours a day cdcinfo@cdc.gov