

Alarms over radiation from thyroid cancer patients

October 20 2010, By RICARDO ALONSO-ZALDIVAR , Associated Press Writer

(AP) -- Cancer patients sent home after treatment with radioactive iodine have contaminated hotel rooms and set off alarms on public transportation, a congressional investigation has found.

They've come into close contact with vulnerable people, including pregnant women and children, and the household trash from their homes has triggered radiation detectors at landfills.

Rep. Edward Markey, D-Mass., says the problem stems from a decision years ago by the Nuclear Regulatory Commission to ease requirements that [thyroid cancer](#) patients remain in the hospital a few days after swallowing doses of radioactive iodine to shrink their tumors.

"There is a strong likelihood that members of the public have been unwittingly exposed to radiation from patients," Markey wrote Wednesday in a letter to the NRC that details findings by his staff. "This has occurred because of weak NRC regulations, ineffective oversight of those who administer these medical treatments, and the absence of clear guidance to patients and to physicians."

The letter coincides with an NRC meeting Wednesday to examine the issue. It's unclear whether the radiation exposure occurs at levels high enough to cause harm.

About 40,000 people a year develop thyroid cancer, which generally

responds well to treatment. Certain types are treated by swallowing radioactive iodine, or iodine-131. It concentrates in the thyroid, but small amounts are excreted through urine, saliva and sweat.

People given high doses may be kept in the hospital, but many patients are sent home with instructions on how to minimize exposure to others over the next few days. Most of the radiation is gone in about a week, says the National Cancer Institute's website for patients.

Traditionally such patients were kept in the hospital, but treatment has now shifted to less costly outpatient facilities. Patients sent home are supposed to follow specific precautions, such as sleeping alone in their beds and not giving hugs and kisses to young children. Markey's investigation indicates that's where the breakdown is occurring.

Staffers on the House Energy and Environment subcommittee that Markey chairs sent detailed questionnaires to states that enforce the NRC rules and conducted an online survey of more than 1,000 thyroid cancer patients.

The investigation found that:

- A patient who had received a dose of radioactive iodine boarded a bus in New York the same day, triggering radiation detectors as the bus passed through the Lincoln Tunnel heading for Atlantic City, N.J., a casino Mecca. After New Jersey state police found the bus and pulled it over, officers determined that the patient had received medical instructions to avoid public transportation for two days, and ignored them. The 2003 case highlighted that NRC rules don't require patients to stay off public transportation.
- About 7 percent of outpatients said in the survey they had gone directly to a hotel after their treatment, most of them with their doctors'

knowledge. Hotel stays are a particular concern, since the patient can expose other guests and service workers. In 2007, an Illinois hotel was contaminated after linens from a patient's room were washed together with other bedding. The incident would probably have gone unreported but for nuclear plant workers who later stayed in the same hotel and set off radiation alarms when they reported to work.

- About one-fourth of outpatients said in the survey they never discussed with their doctors how to avoid exposing [pregnant women](#) and children to radiation. The survey found 56 cases in which a patient shared a bathroom or bedroom with a pregnant woman or a child, or had other close contact, which is strongly discouraged in medical guidelines.

- At least two states - Maryland and Massachusetts - said they had encountered problems with household trash from the homes of patients treated with radioactive iodine. Garbage trucks set off radiation alarms at landfills, requiring loads to be unpacked and examined, exposing sanitation workers to a range of hazards.

Markey scolded the NRC for its previous assurances that current regulations are adequate to protect the public. "It is difficult to conclude based on the survey results that this belief is justified," he wrote.

The congressman urged the agency to revise its rules so that more patients are kept in the hospital. Patient advocates say insurance companies routinely refuse to pay for a hospital room because it's not required.

Markey also urged a ban on releasing patients to hotels and letting them take public transportation. And he called for tighter government oversight of medical facilities that provide treatment with radioactive iodine.

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