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Nota di contenuto

; 1. Introduction -- ; 2. Thyroid physiology -- ; 3. Potential exposure to radioactive iodine -- ; 4. Health consequences of radiation exposure -- ; 5. Protective measures -- ; 6. Existing distribution plans for potassium iodide -- ; 7. Process for evaluation of options for distribution of potassium iodide -- ; 8. Conclusions -- ; App. A Public Law 107-188, Public Health Security and Bioterrorism Preparedness and Response Act of 2002, Conference Committee (05/21/02) -- ; App. B Fission product inventories -- ; App. C Potassium iodide distribution in the States -- ; App. D Illustration of process for evaluating KI distribution plans.

Sommario/riassunto

Radioactive iodines are produced during the operation of nuclear power plants and during the detonation of nuclear weapons. In the event of a radiation incident, radioiodine is one of the contaminants that could be released into the environment. Exposure to radioiodine can lead to radiation injury to the thyroid, including thyroid cancer. Radiation to the thyroid from radioiodine can be limited by taking a nonradioactive iodine (stable iodine) such as potassium iodide. This book assesses strategies for the distribution and administration of potassium iodide (KI) in the event of a nuclear incident. The report says that potassium iodide pills should be available to everyone age 40 or younger "especially children and pregnant and lactating women "living near a nuclear power plant. States and municipalities should decide how to stockpile, distribute, and administer potassium iodide tablets, and federal agencies should keep a backup supply of tablets and be prepared to distribute them to affected areas.