“Do not take the stable iodine agent at present !”

To inhabitants, particularly those with children

The protection of the thyroid gland with the stable iodine agent is unnecessary under the present conditions (as of 2011/3/20) for those who have already evacuated to refuge area (>20 km from the Fukushima Nuclear Power Plant) on/before March 19th.

All of you living in the area, where radiation exposure is concerned about, must be worried about health problem possibly caused by the radioactive materials from the Fukushima Nuclear Power Plant accident. Especially, parents with children must have a big concern about radioactive-iodine exposure to children, and think about the administration of sable iodine agent for the protection of thyroid gland.

A press release from The Ministry of Economy, Trade and Industry said that Nuclear Power Plant Disaster Task Force instructed the administration of stable iodine agent at the time of refuge from the warning area (<20 km from the Fukushima Nuclear Power Plant). However, this message does not intend toward peoples who have already evacuated to the refuge area (>20 km from the Fukushima Nuclear Power Plant) on/before March 19th. From the scientific point of view, protection of the thyroid gland with the stable iodine agent is unnecessary for those peoples, and rather it might be toxic in some case. Please do not give the stable iodine agent by your own decision.

However, administration of the stable iodine agent might become necessary, in case of different situation. Please keep watching the announcements from the Japanese government, local governments, Tokyo Electric Power Company (TEPCO) and broadcast news, and then follow the instructions from them.

1. Thyroid gland takes iodine, and synthesizes thyroid hormones. We, human being, take iodine from food. If food contains enough iodine, the thyroid gland takes it and contains full amount of iodine. On the contrary, if there is little iodine in food, the thyroid gland becomes iodine-deficient state and efficiency of absorption of iodine goes up. Normal iodine does not have radioactivity. However, there are radioactive iodine isotopes (such as I-131) and it may adversely affect thyroid gland functions when excess amount is ingested. This might be your concern.
2. Increased number of childhood thyroid cancer was seen after an accident in Chernobyl in

the Eastern European countries. It is reported that the main cause was due to internal radiation exposure from the radioactive iodine in milk. In the Chernobyl accident, Poland surely distributed a stable iodine agent once to 90% of all Polish infants, four days after large-scale radiation exposure outbreak. Eventually, the number of childhood thyroid cancer cases was not increased in Poland, whereas it increased in Ukraine and Belarus, neighboring countries, which did not do so. However, this could not be considered as a result of the stable iodine agent, but (1) Ukraine and Belarus are inland countries with little iodine in food and soil, (2) In Poland facing to the sea, iodine-rich meal is taken, and (3) Poland prohibited the feeding by domestic milk after the accident, but fed by imported dry milk. These factors worked together well, and, as a result, there was not any increase of thyroid cancer case in Poland.

3. In Japan, peoples take enough iodine in the normal eating habits, because soil in Japan contains a lot of iodine. Thus, our thyroid gland is filled with stable iodine. It is unlikely that considerable amount of radioactive iodine is absorbed in the thyroid and influences our health. Therefore, it is not necessary to take a stable iodine agent. It is dangerous to take commercial gargle or disinfectant containing iodine. Even more in baby, there is a risk to cause growth deterioration.

4. At present, there is no immediate risk of meal with radioactive iodine. When a large amount of radioactive iodine spreads out in the soil, plants concentrate it in themselves, then cows eat plants, and radioactive iodine is concentrated more in the cows' bodies. After that, concentration of radioactive iodine in milk and other food rises. The thyroid gland is exposed to radiation, when people eat them.

5. Administration of stable iodine agent is strictly limited to (1) peoples who are assumed to have high contamination of radioactive iodine, and (2) only once. Preventive administration of the stable iodine agent without exposure to high-level radioiodine, might ever cause malfunction of thyroid gland, and induce efficient absorption of radioactive iodine after a certain period of time.

6. It is reported that incidence of infant thyroid cancer does not increase under the thyroidal radiation dose of 0.020 Gy (ICRP Pub94) (the thyroidal radiation dose in Ukraine and Belarus after Chernobyl accident was reported to be around 0.15-3.10 Gy). This safety dose threshold of 0.020 Gy is equivalent to 3 microCi of radioactive iodine in the body. It corresponds to approximately 7,000,000 cpm (counts per minute) in thyroid gland by a radiation survey meter.

7. The Japanese Government has announced that some people with radioactive contamination were detected through screening, who were then decontaminated and were given appropriate instructions. In addition, the result of screening for the radioactive

contamination indicated that no peoples living in >20km from Fukushima Nuclear Power Plant had contamination. Thus, it is thought that there is no internal contamination, which might adversely affect thyroid gland function. Appropriate instruction will be given by any chance if contamination is recognized on the occasion of screening.

8. It was reported that the concentration of radioactive iodine in waterworks in Fukushima City slightly increased on March 17, but this value was lower than the regulation limit, and there is no health problem by drinking.

9. The risk of the thyroid cancer by radioactive iodine is only high for those under 40 years old, especially in infants, but quite low in the older.

The serious situation continues, and, please follow governmental and related local governmental announcement carefully. Thank you in advance.

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