An Accurate Picture of Fukushima’s Thyroid Ultrasound Examination Program

To the Editor—Dr Takano’s letter prompts us to more accurately portray Fukushima’s thyroid ultrasound examination (TUE) program. Increased risk of pediatric thyroid carcinoma by internal and external radiation became evident after 5 to 10 years in Chernobyl accident and atomic bomb victims. Although thyroid radiation doses in Fukushima were thought to be relatively low, individual organ-specific measurements were rare, so a degree of uncertainty remains. A recent report suggests the possibility of radiation-induced risks in pediatric thyroid carcinoma in Fukushima. Accordingly, most Japanese scientists and local stakeholders feel that health effects associated with radionuclides released by our nuclear plant accident have not been scientifically excluded, and that at least 10 years will be needed to determine whether increased risk of pediatric thyroid cancer is present. Due to this situation, anxiety among Fukushima residents certainly persists. Our prefecture commissioned Fukushima Medical University (FMU; Fukushima, Japan) to conduct the TUE program under the guidance of a Prefectural Oversight Committee, which convenes publicly. The Prefectural Assembly unanimously adopted a petition for continuing TUE in September 2016, consistent with International Agency for Research on Cancer recognition that local factors warrant consideration. Nevertheless, Japanese specialists continuously discuss the validity and efficacy of our TUE program in Prefectural Oversight Committee meetings organized by Fukushima’s prefectural government.

Overdiagnosis has been debated in Japan since the 1990s, so indications and guidelines for fine-needle aspiration cytology (FNAC), active surveillance, and surgery were developed in Japan ahead of other countries. To avoid excessive FNAC, program policy excludes nodules with a diameter of 5.0 mm or less from secondary confirmatory examination and uses strict indication criteria for FNAC. Lobectomy accounts for 91.2% of surgical cases and complications are rare. These differences from circumstances in South Korea, the United States, and other countries suggest that the risks of overdiagnosis and overtreatment should be relatively low in Japan. Still, “zero risk” cannot be claimed, so we address overdiagnosis in the explanatory notes used in our informed consent process. In addition, we are conducting dialogue sessions with students and stakeholders in local communities, and are publicizing risks in periodic newsletters to all subjects and their parents. Until now, informed consent for each survey has been obtained from parents in the case of young children. Third-edition informed consent documents include a detailed explanation of the survey’s merits and demerits, with different versions available for different age groups, in accord with guidance from the Prefectural Oversight Committee organized by Fukushima’s prefectural government.

Early explanatory leaflets acknowledged potential harm, and revisions are underway to elaborate on this. In-school examinations have been discussed in open meetings and approved by the Ethics Committee of FMU (No. 1318). The TUE program is one part of the Fukushima Health Management Survey, which also includes a basic survey to estimate individual radiation doses, a comprehensive health check-up program, a mental health and lifestyle survey, and a pregnancy and birth survey. The budget cited by Dr Takano includes everything in the Fukushima Health Management Survey, plus other benefits administered by Fukushima Prefecture, such as subsidizing copayments charged in Japan’s national health insurance scheme, including all copayments for Fukushima residents aged 18 or younger. The TUE program uses approximately a quarter of the whole Fukushima Health Management Survey budget, which is scaling back the basic survey and refining participation criteria for the pregnancy and birth survey. Unilaterally scaling back the TUE program could be misconstrued as negligence in the context of findings that differ from what people would hope for and expect. Maintaining a comprehensive program that adapts its communication to meet emerging needs is a better choice.

Care teams include mental health professionals, with direct support for patients (and parents or guardians) commencing with a secondary confirmatory examination. Cancer diagnoses and treatments are explained face-to-face, with experts on hand for psychological support. By design, the TUE program addresses the anxiety of Fukushima residents while assessing the health effects of radiation. International scrutiny has been favorable, and the accumulation of scientific data to benefit future generations is anticipated. Our ultimate commitment is to people, not protocols. Legitimate criticism will drive change; all criticism will drive us to communicate more effectively.

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In Reply.—This letter clarifies typical conflicting opinions and conflicts that often occur when overdiagnosis pre-