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Author Correction: Reconstruction of residents' thyroid equivalent doses from internal radionuclides after the Fukushima Daiichi nuclear power station accident

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Correction to: *Scientific Reports* <https://doi.org/10.1038/s41598-020-60453-0>, published online 27 February 2020

This Article contains errors in the Methods section under subheading 'Estimation of TED via inhalation' where,

"FC is a correction factor for the dose coefficient because iodine uptake rate is 18.5% (SD 6.0%), lower than the 30% in the ICRP thyroid model, while thyroid volume in Japanese does not differ from that of ICRP reference man¹⁸. $DF_{shelter}$ is a decontamination factor to reflect sheltering. In the present study we set FC to 0.62 (=18.5/30) and $DF_{shelter}$ to 0.5, and the combined uncertainty interval of these two factors is simulated as described below."

should read:

"FC is a correction factor for the dose coefficient because iodine uptake rate is 18.6% (SD 6.0%), lower than the 30% in the ICRP thyroid model, while thyroid volume in Japanese does not differ from that of ICRP reference man¹⁸. $DF_{shelter}$ is a decontamination factor to reflect sheltering. In the present study we set FC to 0.62 (=18.6/30) and $DF_{shelter}$ to 0.5, and the combined uncertainty interval of these two factors is simulated as described below."

The Article also contains an error in equation (3) in the Methods section under the subheading 'Estimation of TED via ingestion in Iitate village' where,

$$E_{\text{Thyroid(ingestion)}} = \sum_j^{14} V_{\text{tap}} \times C_{\text{tap}} \times e_{\text{ing/thy}} \times FC \times Sf \times \frac{X_j}{3}$$

should read:

$$E_{\text{Thyroid(ingestion)}} = \sum_j^{14} V_{\text{tap}} \times C_{\text{tap},j} \times e_{\text{ing/thy}} \times FC \times Sf \times \frac{X_j}{3}$$

In addition, there is a typographical error in the Methods section under subheading 'Uncertainty of correction factors' where,

"Likewise, the combined uncertainty of FC and Sf in formula (2) was simulated by setting FC as having a normal distribution with (18.6 +/- 6.0)/30% and Sf as having a binomial distribution with denominator 100 and expected proportion 0.3."

should read:

“Likewise, the combined uncertainty of FC and Sf in formula (3) was simulated by setting FC as having a normal distribution with $(18.6 \pm 6.0)/30\%$ and Sf as having a binomial distribution with denominator 100 and expected proportion 0.3.”

Finally, this Article contains errors in References 18 and 28 which are incorrectly given as:

18. Kudo, T. et al. Determination of the kinetic parameters for ^{123}I uptake by thyroid, and thyroid weights and volumes, In present-day healthy Japanese volunteers. *Health phys.* In press (2019).

28. Fukushima Revitalization Station (Fukushima Prefecture Government). Relationship between estimated thyroid absorbed doses based on UNSCEAR 2013 report and the rate of detection of malignant or suspected malignancy by each municipality (No. 1-2), on 3 June 2019, <http://www.pref.fukushima.lg.jp/site/portal/kenkocyosa-kentoiinkai-b13.html> (2019).

The correct references are listed below as References 1 and 2:

References

1. Kudo, T. et al. Determination of the Kinetic Parameters for ^{123}I Uptake by the Thyroid, Thyroid Weights, and Thyroid Volumes in Present-day Healthy Japanese Volunteers. *Health Phys.* **118**, 417–426, <https://doi.org/10.1097/HP.0000000000001144> (2020).
2. Ohira, T. et al. Absorbed radiation doses in the thyroid as estimated by UNSCEAR and subsequent risk of childhood thyroid cancer following the Great East Japan Earthquake. *J Radiat Res*, rrz104, <https://doi.org/10.1093/jrr/rrz104> (2020).



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