Author's response to reviews

Title: Exposure of the Swiss population to computed tomography

Authors:

Abbas Aroua (abbas@aroua.com)  
Eleni-Theano Samara (elina.samara@hopitalvs.ch)  
François O Bochud (francois.bochud@chuv.ch)  
Reto Meuli (reto.meuli@chuv.ch)  
Francis R Verdun (francis.verdun@chuv.ch)

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Feedback to the comments of referee 2:

Major compulsory revisions:

Point 1 - text changed accordingly. number of Swiss population mentioned in the Results section.

Point 2 - 1700 examinations / 1000 population is the total number of examinations in 2008. The figure published in UNSCEAR Report 2008 corresponds to the year 1998 (previous nationwide survey): 1400 examinations / 1000 population. The UNSCEAR Report was published with a long delay and presented data of the late 1990s.

Point 3 - The formula \( E = C_f \times DLP \) mentioned by the referee is a condensed one used for practical calculations of \( E \) for CT examinations. The tissue weighting factors \( (w_T) \) intervene in the conversion factors \( (C_f) \). In fact we should note it \( C_f(E) \), because it converts DLP into \( E \).

The way \( C_f(E) \) is determined: For each type of examination, firsts the DLP is converted into an equivalent dose to the organ or tissue \( (HT = C_f(HT) \times DLP) \), then \( E \) is calculated as the Sum of the organ/tissue equivalent doses weighted by the tissue weighting factors \( (w_T) \). Ultimately, \( C_f(E) \) is established as \( E/DLP \).

In our work the \( C_f(E) \) established based on ICRP60 (1991) and ICRP103 (2007) were used. The latter were calculated by HPA/NRPB.

B- Minor essential revisions:

Point 1 - more terms added in the keywords section

Point 2 - text of reference changed accordingly

Point 3 - year of the survey added on table 3
Point 4 - The word "absolute" removed and "per thousands" changed into "/1000"

Point 5 - NCT and ECT clarified in the caption of table 6

C- Discretionary revisions:

Point 1 - "figures" changed into "results"

Point 2 - The last sentence "Before being analysed .... carefully" is removed

Point 3 - The paragraph was reformulated for more clarity

Point 4/5 - The word "examination" is added

Point 6 - "procedures" changed into "examinations"

Point 7 - caption of table 1 changed

Point 8 - caption of table 2 changed