

Challenges to the Future System of Radiation Protection

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Purpose

- To influence the current movement by the international RP community that supports a reduction of dose limits for “tissue reactions” by at least half
- Retain a strong scientific basis for the system of RP, in contrast to ICRP Publication on “tissue reactions”

Concerns Regarding Publication

1. The understanding of epidemiological results from atomic bomb survivors
 - Should consider data from the Adult Health Study (AHS)

Concerns Regarding Publication

2. Methodology of risk analysis (risk estimate and mechanisms)
 - Threshold doses for tissue reactions based on 1% incidence; stochastic limits based on 5% mortality rate. The relationship between risk of incidence and mortality should be defined.

Concerns Regarding Publication

3. Mechanisms of tissue reactions
 - Do we have enough biological data?
 - Can we validly extrapolate effects from high dose/dose rate to the low dose/dose rate region?

Counterproposal by WNA

1. Promote the understanding of epidemiological data from Hiroshima and Nagasaki
 - Promote the specific analysis of each type of circulatory disease

Counterproposal by WNA

2. Discuss/clarify the relationship between incidence and mortality
 - Discussion of threshold is needed for defining risks
 - Risks for “tissue reactions” and “cataract” should be examined separately

Counterproposal by WNA

3. Discuss concepts of “cell killing,” “severity,” and “non-targeted effects”
 - Recent biological findings outside of Europe suggest more data and discussions are needed

Discussion on WNA/RPWG

- The specific data regarding non-cancer will be opened by ourselves in the next RPWG meeting which will be held in the middle of this September.
- See you in London.