# Abstract

## Development of program to estimate the probability of causation for cancer after exposure to ionizing radiation

Objectives: The objective of this study was to develop of program to estimate the probability of causation(PC) for cancer after exposure to ionizing radiation.

Methods: In this research, we established the method for Korean PC estimate and its uncertainty distribution. Since PC involves in several uncertainty, these uncertainties were assessed and specified the confidence limit for PC.

Results: The result is a program for estimating the PC and its upper confidence limit after adjusting several uncertainties. This program is based on the most reasonable model for radiation cancer risk and recent Korean baseline data and follows international recommendation for compensation criterion.

Conclusion: The conclusion is that we suggest a computational tool to assess more reasonably the causality of radiation exposure for cancer occurred in Korean radiation workers.

Keywords : Ionizing radiation, cancer, probability of causation, uncertainty, upper confidence limit