

OD-S004 Radiation Epidemiological Study of Nuclear Workers in

Japan: progress of J-EPISODE since study VI

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To evaluate the low-dose radiation risk, the Japanese epidemiological study on low-dose radiation effects (J-EPISODE) had started since 1990 and the successive agencies of Japanese government commissioned an epidemiological study of nuclear industry workers in Japan to the Radiation Effects Association (REA). In order to examine the association between cumulative radiation dose and mortality, the follow-up study had been conducted for every five years as one study period. And, until 2014, for a total of five periods, from I to V, 25 years of mortality follow up survey of approximately 204,000 Japanese male radiation workers had been implemented. From the surveys up to Vth study period (~ 2014), confounding factors were observed other than radiation, such as lifestyle habits including smoking and socioeconomic status for example years of education. As a result, it became clear that the adjustment by such a confounding factor is necessary to examine the effects of low-dose radiation. Meanwhile in 2016, the Act on Promotion of Cancer Registration, etc. had been enforced and, in addition to the cancer mortality follow-up survey, it became possible to design a more sensitive cancer morbidity survey. On year 2015, based on these considerations, the VIth study period have started to construct a new study cohort. Request agreement to become subject of the new epidemiological study, explanatory materials, etc. were sent to approximately 213,000 nuclear workers (both present and retired). Finally, 78,798 workers (77,993 males and 805 females) who responded validly to the lifestyle survey were defined as the respondents to be analyzed. In this presentation, progress of J-EPISODE study since VIth study period (2015–2019) to the middle of VIIth (2020–) will be introduced. This study was commissioned by the Nuclear Regulation Authority of the Government of Japan.