Project Plan and Preliminary Results

Objectives Several studies have found associations between chemical exposures in the oil industry and cancer incidence. However, few studies have looked at Norwegian offshore oil industry workers. Thus, the main objective of the present project is to assess the impact of chemical exposures on cancer incidence in Norwegian offshore workers.

Methods The project includes 28,000 workers who in 1998–1999 gave detailed information on work history through a questionnaire. Four studies will be conducted; a descriptive study on self-reported exposures, two case-cohort studies where job-exposure-matrices will be used to assess the impact of benzene and asbestos on lymphohematoopoietic cancers and mesotheliomas/lung cancer, respectively, and a validation study. The latter aims at comparing the Cancer Registry of Norway (CRN) offshore cohort with offshore workers registered in the Norwegian Registry of employers and employees, and, additionally, report historical cancer incidence by year of first employment.

Preliminary Results In 2007, the offshore cohort was linked to the CRN main database for a preliminary evaluation of cancer incidence in the offshore cohort in the period 1999–2005 with the Norwegian population as a reference group. For acute myeloid leukemia and cancer of the pleura it was estimated standardized incidence ratios at 2.0 (95% CI: 1.0 to 3.7) and 2.2 (95% CI: 0.9 to 4.6), respectively (Aas et al Scand J Work Environ Health 2009;35:397–9).

Conclusions The results from the 2007-linkage have to be interpreted cautiously due to few cases and no use of exposure data. The results do, however, suggest an excess of risk in some types of cancer among offshore workers. The announced studies are expected to give more precise information.