

As a result, the cause-and-effect relationships of work accidents in member countries of the European Union were determined and evaluated.

УДК 314.484

GLOBAL CANCER TRENDS: IMPLICATIONS FOR CANCER RESEARCH AND PREVENTION

Christopher P. Wild

International Agency for Research on Cancer (IARC), World Health Organization, 150 cours Albert Thomas, Lyon CEDEX 08, France, 69372

МИРОВЫЕ ТЕНДЕНЦИИ ЗЛОКАЧЕСТВЕННЫХ ЗАБОЛЕВАНИЙ: ПОКАЗАНИЯ К ИССЛЕДОВАНИЯМ И ПРОФИЛАКТИКЕ РАКА. Кристофер П. Уайлд. Международное агентство по исследованиям рака, ул. Кур Альбер Тома, 150, Лион СЕДЕКС 08, Франция, 69372

Key words: cancer; prevention; risk factors; epidemiology

Ключевые слова: рак; профилактика; факторы риска; эпидемиология

Demographic changes and evolving patterns of risk factors will result in major increases in the cancer burden worldwide in the next two decades (World Cancer Report 2014; Stewart BW and Wild CP, Eds, IARC, 2014). At the same time in many countries treatment costs are spiralling while in others access to effective therapy remains extremely limited. The combination of growing cancer burden and challenges in ensuring access to treatment is a threat to sustainability of health care systems, indicating no country can treat its way out of the cancer problem. In response increased priority must be placed on prevention and early detection, with identification of risk factors being a critical foundation to primary prevention (Vineis P, Wild CP, Lancet, 383: 549, 2014). Much is known already, with typical estimates of 30-50% of cancers preventable if current knowledge was translated in to preventive interventions. However, there remain a number of common cancers for which the aetiology remains obscure (e.g. prostate, pancreas, kidney, brain and haematological cancers). Advances in understanding the underlying mechanisms of malignant transformation and the technology to investigate such pathways offer great opportunities to epidemiology (Wild CP et al., JNCI, 107: 353, 2014) through for example, biomarkers of exposure, classification of cancers into molecular sub-types, establishing biological plausibility of exposure-disease associations, and provision of valid surrogate endpoints in evaluation of interventions. Finally, molecular tools will allow exposures throughout the life-course to be linked to biological changes, possibly providing clues to subsequent cancer risk. In summary, translational cancer research stands at an exciting but critical point in time. A concerted effort is required to drive the advances in basic science towards prevention and early detection in order to complement the benefits to be gained in the area of personalized or stratified treatment.

УДК 613.6.027

DESIGN OF PROSPECTIVE FOLLOW UP OF CHRYSOTILE ASBESTOS MINERS AND PRODUCTION WORKERS IN ASBEST

Dana Hashim¹, Evgeny Kovalevskiy², Joachim Schüz¹

¹International Agency for Research on cancer, 150 cours Albert Thomas Lyon, France, 68008; ²Izmerov Research Institute of Occupational Health, 31, Budennogo Ave., Moscow, Russia, 105275

СТРУКТУРА ПРОСПЕКТИВНОГО ДИНАМИЧЕСКОГО НАБЛЮДЕНИЯ У РАБОЧИХ ПО ДОБЫЧЕ И ПЕРЕРАБОТКЕ ХРИЗОТИЛА АСБЕСТА В ГОРОДЕ АСБЕСТ. Дана Хашим¹, Евгений Ковалевский², Йоахим Шүц¹ ¹Международное агентство по исследованиям рака, ул. Кур Альбер Тома, 150, Лион СЕДЕКС 08, Франция, 69372; ²ФГБНУ «Научно-исследовательский институт медицины труда им. академика Н.Ф. Измерова», пр-т Будённого, 31, Москва, Россия, 105275

Key words: asbestos; chrysotile; epidemiology

Ключевые слова: асбест; хризотил; эпидемиология

Introduction: Asbest town in Sverdlovsk Oblast residents have been employed as miners and production workers in and around the Asbest town's open-pit chrysotile asbestos mines for over a century. We prospectively follow up cancer incidence and causes of death among Asbest workers occupationally exposed to chrysotile asbestos extending a currently ongoing retrospective cohort study. **Methods.** For the retrospective study mortality data was collected from medical death certificates from 54,000 worker records from January 1, 1975 through February 28, 2016 submitted to the Sverdlovsk Civil Acts Registration Office. Records were matched to vital status and causes of death by full birth name and birth date. A dataset was created that included death date, location, and all causes listed on medical death certificate. These were then converted to International Classification of Disease-10 (ICD-10) coding or, if a Russian classification (1988-98 or 1999-2001) was provided, to ICD-10. These methods will be replicated with another medical doctor and proportions of matching codes will be calculated to assure causes of death validity. Workers and veterans still alive and living in Asbest today will be enrolled for a prospective study including lifestyle questionnaire, biological sampling for subset, and followed up through the same mechanism for causes of death and with the Oncology Dispensary in Yekaterinburg and their clinical network for cancer incidence. **Results.** The ongoing project has identified 15,800 individual deaths thus far. The mean age of death was 60±0.12 (standard deviation) years. Limitations of the ongoing study are lack of many potential confounding factors and mortality data only. These limitations can be overcome defining a prospective cohort as information on lifestyle factors can be assessed prospectively