

Completeness of population based cancer registration in Lower Saxony

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Introduction

Complete recording of incident cancer cases is essential for the use of cancer registry data in epidemiological context. Especially in the phase of building up a new cancer registry it is important keep being informed about the state of the registry.

We want to estimate the completeness of the cancer registration for several subregions of Lower Saxony.

Methods and Results

The analysis is restricted to the Weser-Ems region in the western part of Lower Saxony.

This region will be the first one in a stepwise introduction of population based cancer registration in the country in order to enable a goal-directed data collection and the achievement of satisfying completeness in the focused regions.

One method for estimating the completeness of cancer registration is the M/I-index (also called fatality ratio) which compares the mortality and incidence counts [Muir et al., 1987]. The mortality statistics are reliable due to central registration of death certificates. Under the assumption that the fatality ratios observed in the reference cancer registry Saarland apply to Lower Saxony as well (considering age and gender), we can estimate the expected number of incident cases for our regions of interest.

Reference data from Saarland are also used to assess the SRR (standardized registry ratio), i.e. the ratio of cancer cases notified by the registry and the number of expected cancer cases. Depending on the frequency of the diagnoses the evaluation is carried out for the whole region or on a more differentiated geographical level.

In the region Weser-Ems 4445 tumors were notified (95%-KI: [4336;4556]) in 1996 compared to 11037 cases expected considering the age structure of the Weser-Ems population and the incidence data from Saarland. The SRR's differ in the different subregions and for different cancer diagnoses.

Conclusions

Monitoring of fatality ratios and SRR's are simple but useful tools of evaluating the process of data collection of a population based cancer registry. In view of the short period since the onset of data collection in the cancer registry of Lower Saxony, the completeness is satisfying within the bounds of possibility.

References

Muir CS, Waterhouse JAH et al., eds. (1987): Cancer Incidence in Five Continents, Vol. V. Lyon: International Agency for Research on Cancer.