Short Communication

Nonmelanoma skin cancer in the Federal State of Saarland, Germany, 1995–1999

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We analysed incidence data of basal cell carcinoma (BCC) and squamous cell carcinoma (SCC) of the skin from the Cancer Registry Saarland, Germany. During 1995 – 1999, the age-standardised incidence rates (world standard population) of BCC and SCC were 43.7 and 11.2 per 100,000 among men and 31.7 and 4.4 per 100,000 among women.

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Nonmelanoma skin cancer (NMSC) is one of the most common malignant neoplasms in Caucasian populations around the world, and usually refers to either basal cell carcinoma (BCC) or squamous cell carcinoma (SCC) (Weinstock, 1994). Epidemiologic studies of these tumours have been limited by the fact that most patients are customarily seen and treated in the offices of physicians and not hospitalised (Scotto et al, 1983). Since the primary source of data for cancer registries is the in-patient hospital file, routinely collected statistics on NMSC are usually incomplete and not comparable with other forms of cancer (Scotto et al, 1996; Lucke et al, 1997). In addition, many cancer registries do not collect information on BCC and the incidence is often determined on the basis of surveys (e.g. Fears and Scotto, 1982; Giles et al, 1988; Green and Battisutta, 1990; Kricker et al, 1990; Roberts, 1990; Serrano et al, 1991; Green et al, 1996). In a recent review on the epidemiology of NMSC incidence, Green concluded that ‘little is known about worldwide trends in incidence of BCC and SCC’ (Green, 1992).

Here, we present the findings of detailed analyses of the NMSC incidence of the Federal State of Saarland for the period 1995–1999. We also report the incidence by histological groups and anatomical sites.

After the introduction of the International Classification of Disease for Oncology (ICD-O, first edition, WHO) in 1976, the population-based Saarland Cancer Registry (about 1.1 million residents) gradually used this classification to code NMSC reports. For the first occurrence of BCC and SCC, we restricted the calculation of incidence rates to the period 1995 – 1999 because before 1995, the annual proportion of unspecified histology codes was too large (>10%). Basal cell carcinoma and SCC counted only if the patient had no prior registered cancer with the same histologic diagnosis. Patients with a report both of BCC and SCC during the registration period were counted as cases within the BCC and SCC analysis.

We calculated site-specific incidence rates based on the fourth digit of the ICD-9 code (ICD-9: 173.0 skin of the lip, 173.1 eyelid, 173.2 external ear, 173.3 skin of other and unspecified parts of face, 173.4 skin of the scalp and neck, 173.5 skin of the trunk, 173.6 skin of the upper limb and shoulder, 173.7 skin of the lower limb and hip, 173.8 overlapping lesions of skin, 173.9 skin, not otherwise specified).

We calculated sex-specific age-standardised incidence rates for BCC and SCC using the World Standard Population (Parkin et al, 1992) for the period 1995–1999. We also calculated age-specific incidence rates. For the study of the anatomical distribution of BCC and SCC, we calculated relative site-specific age-standardised incidence rates per unit area of the skin (RSA) for the period 1995–1999. We therefore divided the site-specific age-standar-
Table 1 Age-specific, crude and age-standardised incidence rates of BCC and SCC among men and women in the Federal State of Saarland, 1995–1999

| Age (years) | BCC N | Rate | s.e. | SCC N | Rate | s.e. |
|-------------|-------|------|------|-------|------|------|
| 30–34       | 12    | 5.2  | 1.49 | 0     | 0.0  | 0.0  |
| 35–39       | 22    | 9.5  | 2.02 | 5     | 2.2  | 0.96 |
| 40–44       | 47    | 22.2 | 3.24 | 5     | 2.4  | 1.06 |
| 45–49       | 82    | 43.3 | 4.78 | 9     | 4.8  | 1.58 |
| 50–54       | 110   | 73.6 | 7.02 | 7     | 4.7  | 1.77 |
| 55–59       | 198   | 104.6| 7.44 | 30    | 15.9 | 2.89 |
| 60–64       | 281   | 165.3| 9.86 | 50    | 29.4 | 4.16 |
| 65–69       | 335   | 244.1| 13.34| 66    | 48.1 | 5.92 |
| 70–74       | 348   | 234.9| 18.49| 119   | 17.9 | 10.81|
| 75–79       | 259   | 453.2| 28.16| 100   | 17.5 | 17.50|
| 80–84       | 137   | 455.2| 38.89| 90    | 29.9 | 31.52|
| 85+         | 116   | 565.6| 52.51| 62    | 302.3| 38.39|

All ages

| Crude       | 1960 | 74.9 | 1.69 | 543   | 20.8 | 0.89 |
| WSR         | 1960 | 43.7 | 1.17 | 543   | 11.2 | 0.49 |

Rate: cases per 100 000; s.e. = standard error of the rate; crude = crude rate; WSR = age-standardised rate (World Standard Population); BCC = basal cell carcinoma; SCC = squamous cell carcinoma.

Table 2 Age-specific, crude and age-standardised incidence rates of BCC and SCC among women in the Federal State of Saarland, 1995–1999

| Age (years) | BCC N | Rate | s.e. | SCC N | Rate | s.e. |
|-------------|-------|------|------|-------|------|------|
| 30–34       | 26    | 11.7 | 2.30 | 0     | 0.0  | 0.0  |
| 35–39       | 34    | 15.4 | 2.64 | 0     | 0.0  | 0.0  |
| 40–44       | 53    | 26.3 | 3.61 | 4     | 2.0  | 0.99 |
| 45–49       | 79    | 43.8 | 4.93 | 1     | 0.6  | 0.56 |
| 50–54       | 88    | 59.8 | 6.38 | 5     | 3.4  | 1.52 |
| 55–59       | 178   | 91.2 | 6.83 | 17    | 8.7  | 2.11 |
| 60–64       | 224   | 123.9| 8.28 | 24    | 13.3 | 2.71 |
| 65–69       | 243   | 153.0| 9.81 | 23    | 14.5 | 3.02 |
| 70–74       | 287   | 179.1| 10.37| 50    | 31.2 | 4.41 |
| 75–79       | 305   | 267.8| 15.34| 72    | 63.2 | 7.45 |
| 80–84       | 253   | 331.5| 20.84| 83    | 108.7| 11.94|
| 85+         | 199   | 274.2| 19.43| 140   | 192.9| 16.30|

All ages

| Crude       | 1977 | 71.1 | 1.60 | 420   | 15.1 | 0.74 |
| WSR         | 1977 | 51.7 | 1.06 | 420   | 4.4  | 0.31 |

Rate = cases per 100 000; s.e. = standard error of the rate; crude = crude rate; WSR = age-standardised rate (World Standard Population); BCC = basal cell carcinoma; SCC = squamous cell carcinoma.
are easily treated by physicians (e.g. by cryotherapy, currettage, diathermy or excision) without histological confirmation of the diagnosis (Green, 1992) hampering the population-based registration of these tumours via pathology departments by the cancer registry. In addition, a variable proportion of people with skin cancer never present for medical treatment because of lack of symptoms or low levels of medical or public interest and such cases will escape conventional means of detection altogether. On the other hand, new cases of skin cancers, especially SCCs, may not be recognised or correctly diagnosed on presentation to doctors.

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