## 3.11 Malignant melanoma of the skin

### Epidemiology

In 2012, about 20,800 people were newly diagnosed in Germany with malignant melanoma of the skin, which constitutes a share of 4% of all new cases of cancer.

The median age of women at diagnosis is currently 59 years, which is comparatively low. The median age of men at diagnosis is eight years higher.

Since the 1980s, the age-standardized incidence rates of women and men have more than tripled. The jump since 2008 in both sexes is probably the result of skin cancer screening being introduced in July of that year in Germany. Overall, mortality rates remained largely unchanged over the observed period.

From a histological point of view, it is possible to distinguish between different subtypes of malignant melanoma. The dominant type is the superficial spreading melanoma (SSM), which is associated with a favourable prognosis. Other forms, in particular the nodular and amelanotic melanoma, are to be seen as having considerably less favourable prognoses.

Currently, the relative 5-year survival rate in Germany for women with malignant melanoma of the skin is 94% and for men 91%. The tumour stage at diagnosis also contributes to what have in the meantime become very favourable survival rates. Two-thirds of all melanomas are discovered while still at an early tumour stage (T1).

### Risk factors and early detection

The most important endogenous risk factor for the development of a malignant melanoma is the number of pigmented moles a person has. These melanoma occur in people with lighter skin types rather than in those with darker complexions. If family members are already suffering from this type of skin cancer (at least 2 first-degree relatives) it may indicate the presence of gene mutations. Depending on the mutation, the risk of developing a malignant melanoma can be increased to a varying extent. Even if you have ever had a melanoma, there is an increased risk of developing another.

The most important exogenous risk factor is ultraviolet (UV) radiation. This is true for natural sunlight and artificial UV radiation for example from a solarium/sunbed. Exposure to the sun during childhood and adolescence and so-called intermittent sun exposure (as is typical during summer holidays) increase the risk in particular. Being exposed to artificial UV radiation in the workplace, for example during welding work, could possibly also be a risk factor.

In mid-2008, new screening regulations were introduced in Germany for skin cancer within the framework of legislation on the early detection of cancer. Men and women above 35 years of age with statutory health insurance are entitled to a skin examination every two years by a suitably trained doctor (dermatologist, general practitioner, etc.).
Figure 3.11.1a
Age-standardised incidence and mortality rates, by sex, ICD-10 C43, Germany 1999 – 2012
per 100,000 (European standard)

Incidence rate: Men Women
Mortality rate: Men Women

Figure 3.11.1b
Absolute numbers of incident cases and deaths, by sex, ICD-10 C43, Germany 1999 – 2012

Incident cases: Men Women
Deaths: Men Women

Figure 3.11.2
Age-specific incidence rates by sex, ICD-10 C43, Germany 2011 – 2012
per 100,000

Age group
Table 3.11.2
Cancer incidence and mortality risks in Germany by age and sex, ICD-10 C43, database 2012

<table>
<thead>
<tr>
<th>Men aged</th>
<th>Risk of developing cancer</th>
<th>Mortality risk</th>
<th>Women aged</th>
<th>Risk of developing cancer</th>
<th>Mortality risk</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>in the next ten years</td>
<td>ever</td>
<td>in the next ten years</td>
<td>ever</td>
<td></td>
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<tr>
<td>35 years</td>
<td>0.1% (1 in 720)</td>
<td>1.9% (1 in 52)</td>
<td>&lt;0.1% (1 in 9,900)</td>
<td>0.3% (1 in 290)</td>
<td></td>
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<tr>
<td>45 years</td>
<td>0.2% (1 in 430)</td>
<td>1.8% (1 in 55)</td>
<td>&lt;0.1% (1 in 4,100)</td>
<td>0.3% (1 in 300)</td>
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<tr>
<td>55 years</td>
<td>0.4% (1 in 270)</td>
<td>1.7% (1 in 60)</td>
<td>0.1% (1 in 2,000)</td>
<td>0.3% (1 in 310)</td>
<td></td>
</tr>
<tr>
<td>65 years</td>
<td>0.7% (1 in 150)</td>
<td>1.4% (1 in 70)</td>
<td>0.1% (1 in 1,000)</td>
<td>0.3% (1 in 330)</td>
<td></td>
</tr>
<tr>
<td>75 years</td>
<td>0.7% (1 in 140)</td>
<td>1.0% (1 in 100)</td>
<td>0.2% (1 in 650)</td>
<td>0.3% (1 in 390)</td>
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</tr>
<tr>
<td>Lifetime</td>
<td>2.0% (1 in 50)</td>
<td></td>
<td>0.3% (1 in 290)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

|          | in the next ten years     | ever          | in the next ten years | ever          |                |
| 35 years | 0.2% (1 in 410)           | 1.7% (1 in 58) | <0.1% (1 in 11,000) | 0.2% (1 in 410) |
| 45 years | 0.3% (1 in 330)           | 1.5% (1 in 67) | <0.1% (1 in 4,600) | 0.2% (1 in 420) |
| 55 years | 0.3% (1 in 310)           | 1.2% (1 in 82) | <0.1% (1 in 3,200) | 0.2% (1 in 450) |
| 65 years | 0.4% (1 in 240)           | 0.9% (1 in 110)| <0.1% (1 in 2,100) | 0.2% (1 in 500) |
| 75 years | 0.4% (1 in 260)           | 0.6% (1 in 160)| 0.1% (1 in 1,100) | 0.2% (1 in 580) |
| Lifetime | 1.9% (1 in 52)            |                | 0.2% (1 in 400)   |                |

Figure 3.11.3
Distribution of T-stages at first diagnosis by sex (top: all cases; bottom: only valid reports)
ICD-10 C43, Germany 2011 – 2012

Figure 3.11.4a
Absolute survival rates up to 10 years after first diagnosis, by sex, ICD-10 C43, Germany 2011 – 2012

Figure 3.11.4b
Relative survival rates up to 10 years after first diagnosis, by sex, ICD-10 C43, Germany 2011 – 2012
ICD-10 C43 | Cancer in Germany

Figure 3.11.5
Registered age-standardised incidence and mortality rates in German federal states, by sex, ICD-10 C43, 2011 – 2012
per 100,000 (European standard)

Figure 3.11.6
International comparison of age-standardised incidence and mortality rates, by sex, ICD-10 C43, 2011 – 2012 or latest available year (details and sources, see appendix)
per 100,000 (European standard)