# 3.28 Hodgkin lymphoma

### Table 3.28.1

Overview of key epidemiological parameters for Germany, ICD-10 C81

| Incidence   |            | 2018       | Prediction for 2022 |            |        |          |
|---|------------|------------|---------------------|------------|--------|----------|
|   | Women      | Men        | Women               | Men        | Women  | Men      |
| Incident cases  | 1,050      | 1,520      | 1,100               | 1,440      | 1,200  | 1,600    |
| Crude incidence rate <sup>1</sup>                           | 2.5        | 3.7        | 2.6                 | 3.5        | 2.8    | 3.8      |
| Age-standardised incidence rate <sup>1, 2</sup>             | 2.4        | 3.4        | 2.5                 | 3.2        | 2.7    | 3.5      |
| Median age at diagnosis                                     | 44         | 49         | 44                  | 48         |        |          |
| Mortality   |            | 2017       |                     | 2018       |        | 2019     |
|   | Women      | Men        | Women               | Men        | Women  | Men      |
| Deaths  | 125        | 177        | 124                 | 197        | 127    | 207      |
| Crude mortality rate <sup>1</sup>                           | 0.3        | 0.4        | 0.3                 | 0.5        | 0.3    | 0.5      |
| Age-standardised mortality rate $^{\scriptscriptstyle 1,2}$ | 0.2        | 0.3        | 0.1                 | 0.3        | 0.1    | 0.3      |
| Median age at death   | 76         | 73         | 77                  | 74         | 79     | 73       |
| Prevalence and survival rates                               |            | 5 years    |                     | 10 years   |        | 25 years |
|   | Women      | Men        | Women               | Men        | Women  | Men      |
| Prevalence  | 4,400      | 5,900      | 8,100               | 10,700     | 17,100 | 20,600   |
| Absolute survival rate (2017-2018) <sup>3</sup>             | 88 (82–93) | 76 (74–80) | 81 (77–91)          | 69 (63–75) |        |          |
| Relative survival rate (2017–2018) <sup>3</sup>             | 91 (85–96) | 81 (77–84) | 87 (82–96)          | 77 (70–85) |        |          |

<sup>1</sup> per 100,000 persons <sup>2</sup> age-standardised (old European Standard) <sup>3</sup> in percent (lowest and highest value of the included German federal states)

# Epidemiology

Hodgkin's disease (Hodgkin lymphoma), formerly called lymphogranulomatosis, has microscopically recognisable so-called Sternberg-Reed giant cells in the bone marrow and thus differs from Non-Hodgkin lymphomas.

Hodgkin lymphoma is a rare disease that affected about 1,100 women and 1,440 men in Germany in 2018, relatively often in young and middle adulthood. Between the ages of 10 and 35, this disease is therefore one of the five most common cancer diagnoses. The risk of ever developing Hodgkin's disease is 0.2% for women and 0.3% for men.

The incidence rates, as well as the absolute number of new cases, have been increasing slightly since the mid-2000s, while the number of deaths from Hodgkin's disease has recently been significantly lower than at the end of the 1990s, with just over 300 deaths per year. The prognosis is correspondingly favourable, with a relative survival five years after diagnosis of about 91% in women and 81% in men. Due to the often chronic recurrence of the disease, the long-term prognosis is also influenced by the side effects of the therapy (including second primary tumours).

# **Risk factors**

The risk factors for Hodgkin lymphoma are only partially understood. Congenital diseases of the immune system or acquired immune defects, for example due to an HIV infection, can increase the risk of Hodgkin lymphoma.

Epstein-Barr viruses (EBV), the pathogens of Pfeiffer's glandular fever (infectious mononucleosis) can play a causative role in the development of Hodgkin lymphoma. However, this probably only applies to some Hodgkin lymphomas. Whether lifestyle-related risk factors or environmental risks are responsible for the development of Hodgkin lymphoma is still unclear. Long-term cigarette use may increase the risk.

Children and siblings of those affected have a slightly increased risk of developing Hodgkin's disease themselves. The reasons for these associations are not yet completely clear and are currently being researched.

Overall, no clear cause for the development of Hodgkin lymphoma can be found for most patients. Presumably, several factors must interact before Hodgkin lymphoma develops.



#### Figure 3.28.1b

Absolute numbers of incident cases and deaths by sex, ICD-10 C81, Germany 1999–2018/2019, projection (incidence) through 2022







### Table 3.28.2

# Cancer incidence and mortality risks in Germany by age and sex, ICD-10 C81, database 2018

|               | Risk of developing cancer |              |       |              | Mortality risk       |                |         |              |  |
|---------------|---------------------------|--------------|-------|--------------|----------------------|----------------|---------|--------------|--|
| Women aged    | in the next 10 years      |              | ever  |              | in the next 10 years |                | ever    |              |  |
| 15 years      | < 0.1 %                   | (1 in 2,200) | 0.2 % | (1 in 490)   | < 0.1 %              | (1 in 374,700) | < 0.1 % | (1 in 4,300) |  |
| 25 years      | < 0.1 %                   | (1 in 2,500) | 0.2 % | (1 in 630)   | < 0.1 %              | (1 in 577,000) | < 0.1 % | (1 in 4,300) |  |
| 35 years      | < 0.1 %                   | (1 in 4,000) | 0.1 % | (1 in 840)   | < 0.1 %              | (1 in 920,200) | < 0.1 % | (1 in 4,400) |  |
| 45 years      | < 0.1 %                   | (1 in 5,200) | 0.1 % | (1 in 1,000) | < 0.1 %              | (1 in 55,700)  | < 0.1 % | (1 in 4,400) |  |
| 55 years      | < 0.1 %                   | (1 in 4,900) | 0.1 % | (1 in 1,300) | < 0.1 %              | (1 in 32,400)  | < 0.1 % | (1 in 4,600) |  |
| Lifetime risk |                           |              | 0.2 % | (1 in 450)   |                      |                | < 0.1 % | (1 in 4,300) |  |
| Men aged      | in the next 10 years      |              |       | ever         | in the next 10 years |                |         | ever         |  |
| 15 years      | < 0.1%                    | (1 in 2,400) | 0.3 % | (1 in 390)   | < 0.1 %              | (1 in 100,900) | < 0.1 % | (1 in 2,600) |  |
| 25 years      | < 0.1 %                   | (1 in 2,200) | 0.2 % | (1 in 460)   | < 0.1 %              | (1 in 90,400)  | < 0.1 % | (1 in 2,600) |  |
| 35 years      | < 0.1 %                   | (1 in 2,800) | 0.2 % | (1 in 580)   | < 0.1 %              | (1 in 90,200)  | < 0.1 % | (1 in 2,700) |  |
| 45 years      | < 0.1 %                   | (1 in 3,100) | 0.1 % | (1 in 710)   | < 0.1 %              | (1 in 43,600)  | < 0.1 % | (1 in 2,700) |  |
| 55 years      | < 0.1 %                   | (1 in 2,900) | 0.1 % | (1 in 890)   | < 0.1 %              | (1 in 24,600)  | < 0.1 % | (1 in 2,800) |  |
| Lifetime risk |                           |              | 0.3 % | (1 in 360)   |                      |                | < 0.1 % | (1 in 2,600) |  |
|               |                           |              |       |              |                      |                |         |              |  |

### Figure 3.28.3

Distribution of UICC stages at diagnosis by sex

Not included because UICC stages are not defined for Hodgkin lymphoma.

### Figure 3.28.4

Absolute and relative survival rates up to 10 years after diagnosis by sex, ICD-10 C81, Germany 2017–2018



#### Figure 3.28.5

Relative 5-year survival by UICC stage Not included because UICC stages are not defined for Hodgkin lymphoma.

# Figure 3.28.6

Age-standardised incidence and mortality rates in German federal states by sex, ICD-10 C81, 2017-2018 per 100,000 (old European Standard)



Figure 3.28.7

International comparison of age-standardised incidence and mortality rates by sex, ICD-10 C81, 2017-2018 or latest available year (details and sources, see appendix) per 100,000 (old European Standard)



<sup>3</sup> No data available