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14 Health

Neuchâtel, April 2017

Swiss Cancer Report 2015

Multiple myeloma

1 New cases and mortality

Current situation

Between 2008 and 2012 an average of about 300 men and 230 women were diagnosed with multiple myeloma each year. This type of cancer is more common among men, whose standardised incidence rate is 1.6 times higher than that of women. Multiple myeloma represents less than 1.5% of new cancer cases diagnosed each year.

The lifetime risk of developing a multiple myeloma is 0.6% for men and 0.5% for women (i. e. approx. 6 out of 1000 men and 5 out of 1000 women; T 1).

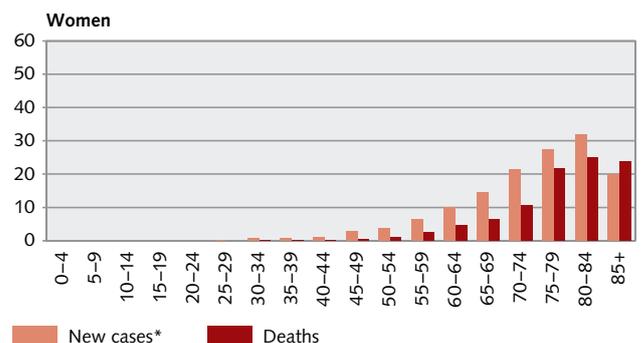
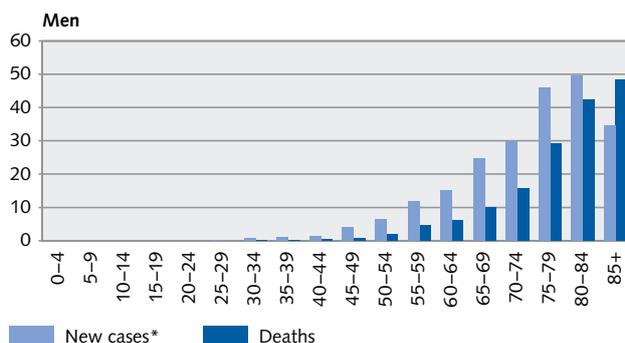
Multiple myeloma and malignant plasmacytomas (C90) belong to the group of blood cancers, as do leukaemias and lymphomas. Multiple myeloma is characterised by the excessive proliferation of plasma cells (a type of white blood cells) in the bone marrow. Cancerous cells form clusters in the bone marrow, preventing the normal production of other blood cells. Multiple myeloma can also lead to destruction of the bones and organs such as the kidneys.¹

Multiple myeloma accounts for almost 2% of deaths from cancer, with an average of more than 300 deaths per year. The risk of dying from a multiple myeloma is 0.3% for men and women. This means that roughly 3 out 1000 people die from this cancer.

Multiple myeloma by age, 2008–2012

G 1

Age-specific rate per 100,000 inhabitants



* New cases estimated on the basis of cancer registry data

Sources: NICER – New cases; FSO – Deaths

Incidence rates increase with age until the age of 84 (G 1) and the median age at diagnosis is 70 for men and 73 for women. The median age at death from multiple myeloma is after 76 for men and after 78 for women.

Regional and international comparisons

There are no differences neither in the incidence rate nor in the mortality rate between German-speaking Switzerland and French- and Italian-speaking Switzerland (G 2). Among the nine European countries compared with Switzerland, incidence rates are in the middle range (G 3). The same applies to mortality rates which vary little throughout the group.

Trends over time

The incidence rate among men rose considerably between 1983 and 1997 (G 4), after which there was no significant change. For women, incidence rates have remained stable for the whole period from 1983 to 2012.

Mortality rates fell by almost 26% between 1988 and 2012 for men and for women.

2 Survival rates

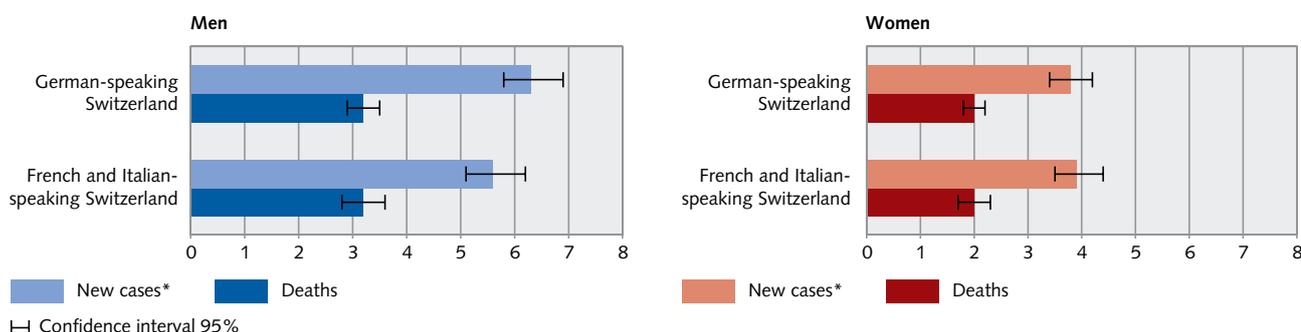
In the period 2008–2012, some 43% of male patients and 50% of female patients survived at least five years after having been diagnosed with multiple myeloma (observed survival rate; T 1). Taking into account the risk of dying from other causes, the five-year survival rate is 48% for men and 53% for women (relative survival rate; G 5). During the 1998–2002 period, this rate was 43% for men and 42% for women. This means that the five-year relative survival rate rose slightly. Between 1998 and 2012, the ten-year survival rate also improved slightly, rising from 20% to 25% for men and from 25% to 31% for women.

In the 2000–2007 period, in comparison with the nine European countries selected for this report, Switzerland held the fifth place for its five-year survival rate for multiple myeloma in men and fourth place for women (G 6).

Multiple myeloma in regional comparison, 2008–2012

G 2

Rate per 100,000 inhabitants, European standard



* New cases estimated on the basis of cancer registry data

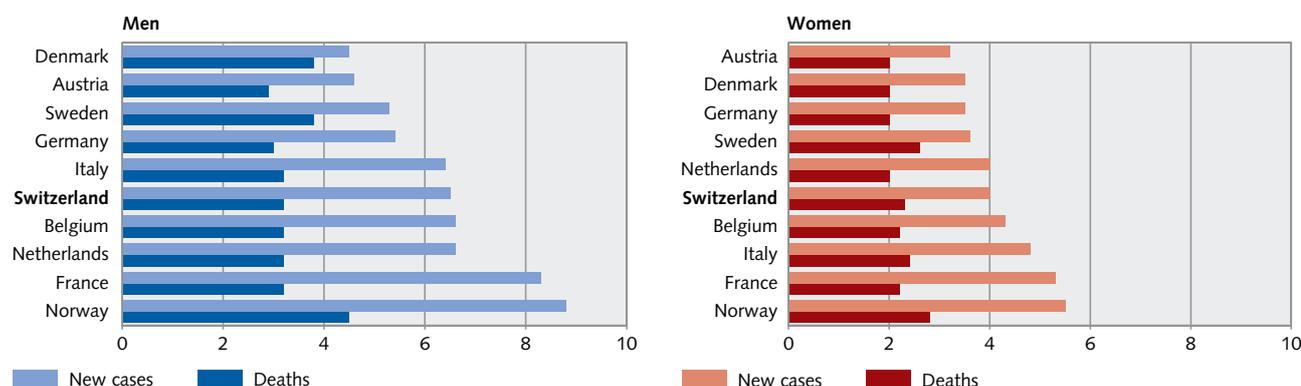
Sources: NICER – New cases; FSO – Deaths

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Multiple myeloma* in international comparison, 2012

G 3

Rate per 100,000 inhabitants, European standard



* Corresponds to the ICD-0-3 codes C88 (Malignant immunoproliferative diseases) and C90 (Multiple myeloma and malignant plasma cell neoplasms)

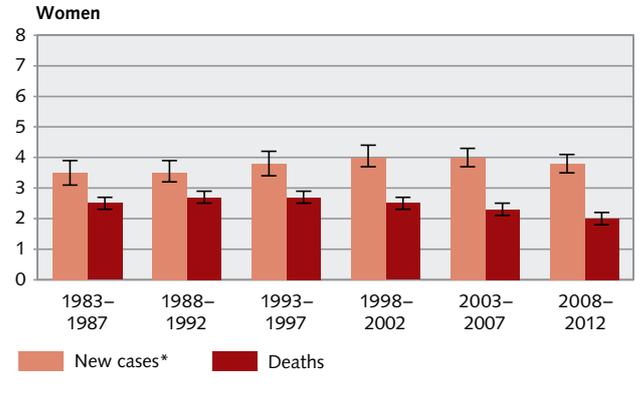
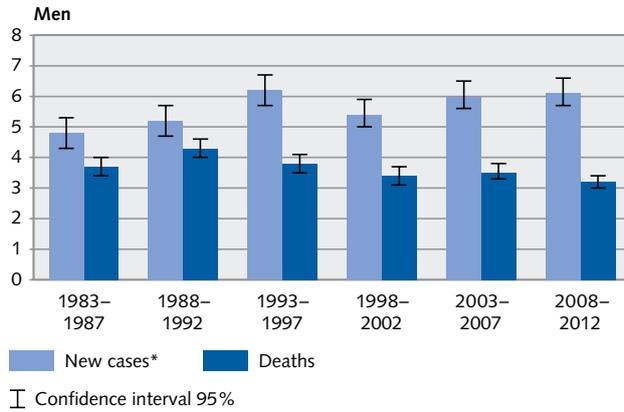
Source: Ferlay J. et al. (2013). Cancer incidence and mortality patterns in Europe: Estimates for 40 countries in 2012

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Multiple myeloma: Trends over time

G 4

Rate per 100,000 inhabitants, European standard



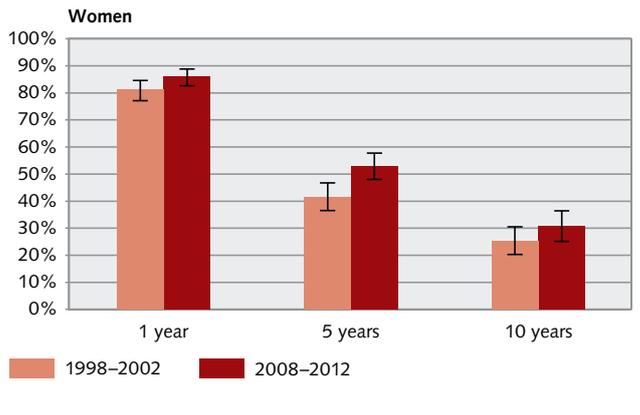
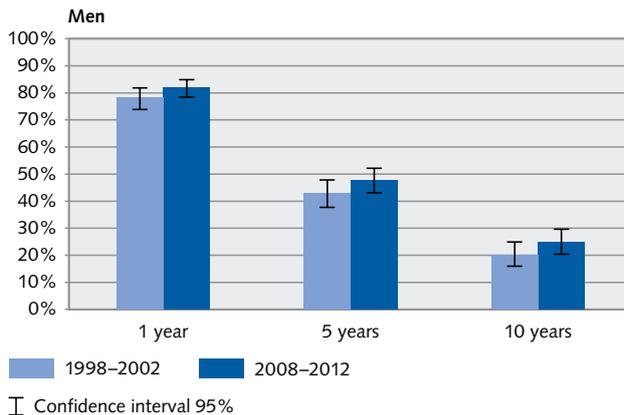
* New cases estimated on the basis of cancer registry data

Sources: NICER – New cases; FSO – Deaths

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Multiple myeloma: Relative survival rate after 1, 5 and 10 years

G 5

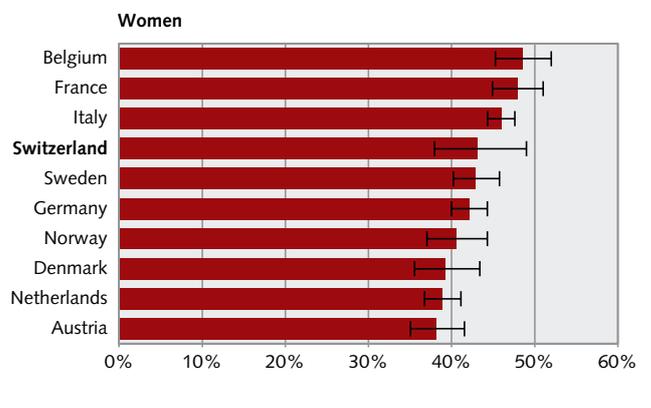
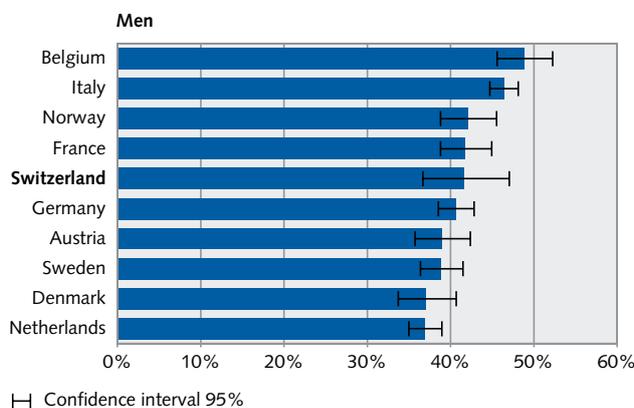


Source: NICER

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Multiple myeloma*: Relative 5-year survival rates in international comparison, 2000-2007

G 6



* Multiple myeloma and malignant plasma cell neoplasms defined according to the ICD-O-3
Data for Belgium, Germany, France, Italy and Switzerland are based on regional data which do not cover the whole country.

Source: EUROCARE-5 Database – Survival Analysis 2000-2007

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Multiple myeloma: Key epidemiological figures

T 1

	Men		Women	
	Incidence	Deaths	Incidence	Deaths
Number of cases per year, average 2008–2012	297	165	232	143
Number of cases 2015 (estimated)	336	179	248	136
Proportion of all cancer cases, average 2008–2012	1.4%	1.8%	1.3%	2.0%
Crude rate (per 100,000 inhabitants and year), 2008–2012	7.7	4.3	5.8	3.6
Average annual change in the crude rate, 2003–2012	1.2%	–0.3%	0.0%	–2.0%
Crude rate 2015 (estimated)	8.3	4.4	6.0	3.3
Standardised rate (per 100,000 inhabitants and year), 2008–2012	6.1	3.2	3.8	2.0
Average annual change in the standardised rate, 2003–2012	0.2%	–1.8%	–0.8%	–2.7%
Median age at diagnosis and death, average 2008–2012	69.9	76.1	73.1	78.1
Lifetime risk, 2008–2012	0.6%	0.3%	0.5%	0.3%
Cumulative risk before the age of 70, 2008–2012	0.3%	0.1%	0.2%	0.1%
Years of potential life lost before the age of 70, average 2008–2012	–	496	–	298

	Men	Women
Observed 5-year survival rate, 31.12.2012	43.3%	49.6%
Relative 5-year survival rate, on 31.12.2012	47.7%	53.0%

Sources: NICER – New cases; FSO – Deaths

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3 Risk factors

Little is known about the aetiology of multiple myeloma.² However, the risk of developing a multiple myeloma does increase with age. In contrast, the risk is small among women and people of European origin.¹ The presence of monoclonal gammopathy of undetermined significance (MGUS) greatly increases the risk of developing a multiple myeloma.^{1,2} Being overweight is also associated with an increased risk of multiple myeloma.^{2,3}

Exposure to ionising radiation is also a risk factor.^{2,3} Occupational exposure (e. g.: agriculture or hairdressing) to certain toxic substances (such as pesticides, organic solvents, asbestos, rubber etc.) is discussed in the scientific literature.^{1,2} The International Agency for Research on Cancer has classified benzene and ethylene oxide as possible risk factors (limited evidence).⁴ Other risk factors mentioned in the scientific literature are autoimmune diseases and viral infections.¹ Furthermore, the aetiology of multiple myeloma has a genetic component.^{1,2}

References

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Swiss Cancer Report 2015

This publication completes the 2015 report on cancer in Switzerland, published in March 2016. The latter presents the current situation with regard to cancer in Switzerland and developments over the past 30 years: after a general overview of all cancers, the report describes the epidemiology of 23 different cancer sites as well as childhood cancers.

Using the same methodology, this current document focuses on another cancer, multiple myeloma. The cantonal and regional cancer registries collect data on new cases, the National Institute of Cancer Epidemiology and Registration (NICER) compiles them. Figures on mortality and demographic data come from the Federal Statistical Office.

The methodology, indicators, classifications, sources and the quality of data used are described in detail in the report: "Le cancer en Suisse, rapport 2015 – Méthode" available in French and German.

Further information on the internet

www.statistik.ch → Statistiken finden → 14 – Gesundheit → Gesundheitszustand → Krankheiten → Krebs

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