

MELANOMA

Table 9.1: Characteristics of the cohort

	Males	Females
First primary cancer	14,241	14,011
Age at diagnosis		
Mean	57.2	54.6
<65 years	9,104	9,500
=>65 years	5,137	4,511
Total person-years	100,188	116,375
Mean follow-up (years)	7	8.3
Histological confirmation (%)	99.4	99.4
Other specified types	99.4	99.4
No histological confirmation	0.6	0.6
Second primary cancers		
Non-simultaneous	2160	1472
Simultaneous	304	204

Table 9.2: Cumulative risk (%) of the most common second primary cancers

	Sex	Follow-up years					
		1	5	10	15	20	23
All cancers	M	2.4	9.2	14.8	19.1	23.4	26.1
All cancers	F	1.4	5.6	10.1	13.8	17.0	17.8
Colon	M	0.1	0.5	1.0	1.2	1.5	1.5
Colon	F	0.1	0.5	0.9	1.3	1.6	1.6
Lung	M	0.1	0.6	1.0	1.5	1.8	1.8
Lung	F	0.1	0.2	0.5	0.7	0.9	0.9
Melanoma	M	0.9	2.9	4.5	5.9	7.0	8.1
Melanoma	F	0.5	2	3.3	4.5	5.4	6.2
Breast	F	0.3	1.1	2.2	3	3.8	3.8
Prostate	M	0.6	2.4	4.1	5.1	7.0	9.0

All other cancers have 10-year cumulative risk of less than 0.5 % for both sexes.

Common second cancers

From Table 9.2 a man's 10-year cumulative risk of contracting a second cancer following a diagnosis of melanoma is seen to be higher than that for a woman (1 in 7 compared with 1 in 10). A greater excess risk is seen for males for each of the three major cancer types to which both sexes are susceptible, namely colon, lung and melanoma

Age-specific Incidence

The principal feature of Figure 9.1 is that the age incidence curves for the second primary cancers are much higher at all ages and do not converge with increasing age. Age-specific rates for second primaries are very stable across all age groups whereas for first primary melanoma they increase rapidly over the first four decades of life and more slowly thereafter.

Trends in SIRs

The trends in Figure 9.2 show an increased SIR following diagnosis of the first primary and that this decreases over further years of follow-up, though they remain elevated in all age groups.

Trends in SIRs for specific cancer types by period of follow-up can be found in Table 9.4 (page 76) separately for men and women. Overall 23-year SIRs are given in Table 1.3 (pages 58-61). The overall 23-year SIRs are 1.55 for men and 1.49 for women (both significantly greater than 1). Statistically significant SIRs are observed for many types of second cancer, some of the highest for men being for melanoma 7.28, soft tissue 3.07, CLL 2.22, CNS 1.75, NHL 1.66, prostate 1.42. For women the highest are for melanoma 7.24, thyroid 2.24 and Hodgkin lymphoma 2.70.



Figure 9.1: Age-specific rates

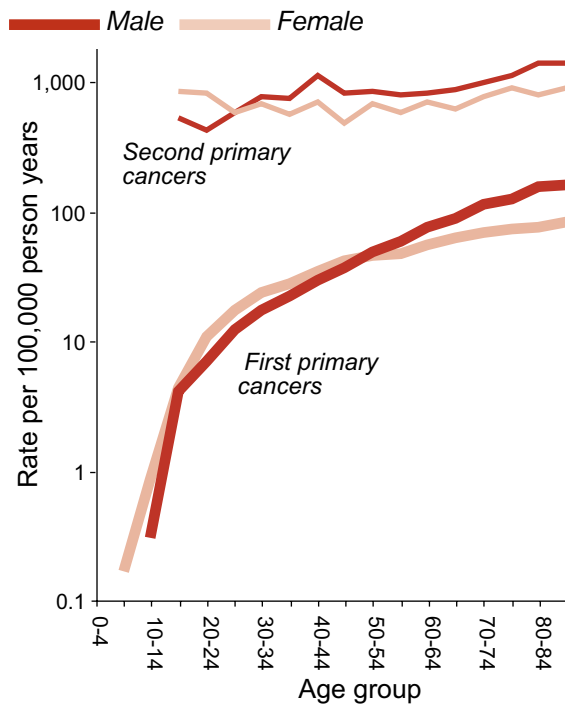
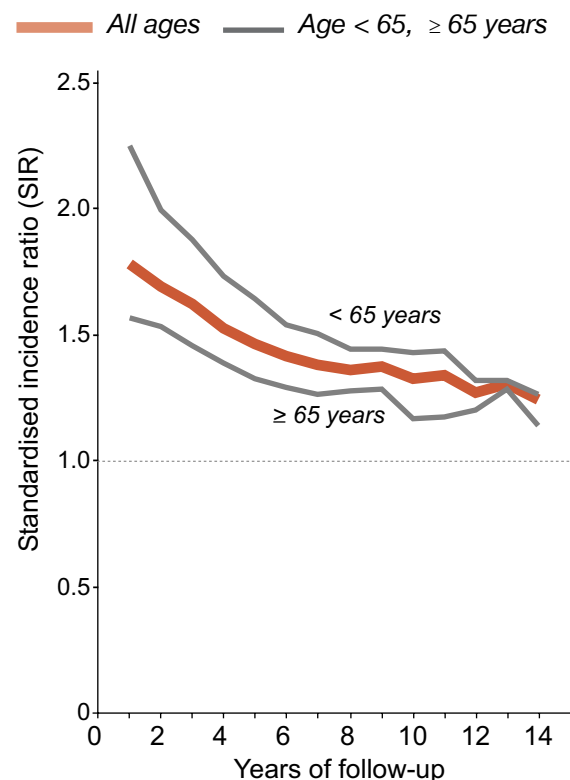


Figure 9.2: Trends in the annual SIR for all second primary cancers



Trends in SIRs with age

In Figure 9.2 the general pattern of decreasing SIRs with increasing follow-up is observed for both age groups, with the under 65 year age group having consistently higher SIRs than older people until curves converge at around 13 years.

Estimates of overall 23-year SIRs by age group and sex are to be found in Table 9.5 (page 77). The younger age group has a 10-25% higher SIR than the older age group. The significant SIRs are 1.73 for men first diagnosed before 65 years of age compared with 1.41 for those diagnosed at an older age. Significant SIRs for women are 1.57 and 1.40 respectively.

For the under 65 year age group the highest SIRs for men are melanoma 7.89, soft tissue 3.13, CLL 2.36, NHL 1.85, CNS 1.77 and prostate 1.46..

For women under age 65 the highest SIRs are melanoma 7.25 and thyroid 1.50.

Comments

People who develop one melanoma are at substantially increased risk of a subsequent melanoma. The NHMRC Clinical Practice Guidelines² for the management of melanoma state that part of their follow-up protocol should involve examination for new melanomas.

Most melanoma is due to sun exposure. Elevations in risk of NHL following a diagnosis of melanoma have been observed repeatedly and, together with other descriptive data on the incidence of NHL, gave rise to the hypothesis that these malignancies may also be caused by sun exposure. Subsequent case-control studies have shown that sun exposure might actually reduce the risk of NHL. These paradoxical findings illustrate the dangers of using studies of second cancers to form hypotheses about causal agents.

When coding melanomas, it is not always easy to distinguish satellite nodules or in transit metastases from new primary lesions which may result in some misclassification in the data set.