

Health Watch  
 Supplement to the 12th report on Multiple myeloma.

There were 16 incident cases, of whom 15 are non-smokers.  
 SIR 16/14.0 = 1.14 95% CI 0.65-1.85  
 SMR 12/8.6 = 1.39 95% CI 0.72-2.42

Multiple myeloma incidence by workplace type  
 Corrected:

work	Person-Years	Observed	Expected	SIR	95% C.I.
Refinery	90424	6	5.83	1.03	0.38 - 2.24
Terminal	92225	9	6.18	1.46	0.67 - 2.76
Airport	8704	.	0.60	.	. - .
Onshore production	26379	1	1.09	0.91	0.02 - 5.10
Offshore Production	9379	.	0.34	.	. - .
	227111	16	14.04	1.14	0.65 - 1.85

Multiple myeloma incidence by period of first employment,  
 adjusted for age and calendar period of follow-up and smoking

Period of first Employment	Person-Years	Cancer	RIR	95% C.I.
Post 1975	110369	4	1.00	1.00 - 1.00
1965-74	72615	5	1.39	0.33 - 5.97
1955-64	29932	4	1.81	0.29 - 11.18
Pre 1954	14259	3	2.37	0.29 - 19.13

Test for heterogeneity  $p=0.8772$

Test for trend  $p=0.4123$

Multiple myeloma incidence by period of first employment,  
 adjusted for age and calendar period of follow-up

Period of first Employment	Person-Years	Cancer	RIR	95% C.I.
Post 1975	110368	4	1.00	1.00 - 1.00

Period of first Employment	Person-Years	Cancer	RIR	95% C.I.
1965-74	72615	5	1.39	0.33 - 5.92
1955-64	29932	4	1.88	0.31 -11.60
Pre 1954	14259	3	2.52	0.31 -20.21

Test for heterogeneity  $p=0.8511$

Test for trend  $p=0.3757$

Multiple myeloma incidence by duration of employment, adjusted for age and calendar period of follow-up and smoking

Duration of Employment	Person-Years	Cancer	RIR	95% C.I.
5-9 Years	53158	1	1.00	1.00 - 1.00
10-15 Years	54596	4	3.59	0.40 -32.60
15-19 Years	43678	.	0.00	0.00 - .
20-24 Years	30495	4	4.95	0.48 -51.15
$\geq 25$ Years	45230	7	4.13	0.38 -45.17

Test for heterogeneity  $p=.0778$

Test for trend  $p=.2583$

Multiple myeloma incidence by duration of employment, adjusted for age and calendar period of follow-up

Duration of Employment	Person-Years	Cancer	RIR	95% C.I.
5-9 Years	53158	1	1.00	1.00 - 1.00
10-15 Years	54596	4	3.63	0.40 -32.90
15-19 Years	43678	.	0.00	0.00 - .
20-24 Years	30495	4	5.19	0.50 -53.54
$\geq 25$ Years	45230	7	4.49	0.41 -49.01

Test for heterogeneity  $p=0.0708$

Test for trend  $p=0.2190$

Multiple myeloma incidence by time since first employment, adjusted for age and calendar period of follow-up and smoking

Time since first Employment	Person-Years	Cancer	RIR	95% C.I.
5-9 Years	38484	1	1.00	1.00 - 1.00
10-15 Years	47942	3	2.32	0.24 -22.58
15-19 Years	44390	1	0.75	0.04 -12.70
20-24 Years	34964	4	3.08	0.28 -33.22
$\geq 25$ Years	61396	7	1.69	0.14 -20.63

Test for heterogeneity  $p=0.6307$

Test for trend  $p=0.7617$

Multiple myeloma incidence by time since first employment, adjusted for age and calendar period of follow-up

Time since first Employment	Person-Years	Cancer	RIR	95% C.I.
5-9 Years	38484	1	1.00	1.00 - 1.00
10-15 Years	47942	3	2.31	0.24 -22.49
15-19 Years	44390	1	0.75	0.04 -12.74
20-24 Years	34964	4	3.12	0.29 -33.68
>=25 Years	61396	7	1.77	0.15 -21.54

Test for heterogeneity  $p=0.6323$

Test for trend  $p=0.7241$

Multiple myeloma incidence by total hydrocarbon exposure (based on highest total hydrocarbon rank job ever held)

Exposure Category	Person-Years	Cancer		
1	41478	3		
2	20113	.		
3	2504	.		
4	104634	12		
5	8405	.		
6	36634	1		
7	13379	.		

NB Category 4 is a default category, ie it includes subjects whose tasks have not been assigned an exposure category by the occupational hygiene panel.

Multiple myeloma Incidence by total hydrocarbon exposure (based on total hydrocarbon ranking of longest job ever held)

Exposure Category	Person-Years	Cancer		
1	57065	5		
2	21592	.		
3	3739	.		
4	96355	10		
5	5997	.		
6	31210	1		
7	6449	.		

NB Category 4 is a default category, ie it includes subjects whose tasks have not been assigned an exposure category by the occupational hygiene panel.