

**TABLE S4** Number of incident cancers observed (I) and expected (E<sub>i</sub>) for monitored test participants by dose category, for selected types of cancer. For leukaemia the whole follow-up period and the period 2-25 years after start of first test participation are considered. For other neoplasms the period more than 10 years after start of first test participation is considered

Type of cancer		Dose category (mSv)						Probability <sup>a</sup> one-sided	Probability <sup>b</sup> two-sided	Direction of trend <sup>c</sup>
		<0.01	0.01- 0.99	1.00- 4.99	5.00- 9.99	10.00- 49.99	≥50.00			
Leukaemia: whole follow-up period	I	10	3	2	1	0	0	0.92	0.15	Negative
	E <sub>i</sub> <sup>d</sup>	9.33	3.16	1.23	0.44	1.70	0.14			
Leukaemia: 2-25 years	I	3	2	1	0	0	0	0.45	0.86	Negative
	E <sub>i</sub> <sup>d</sup>	4.18	1.04	0.35	0.15	0.18	0.10			
Leukaemia excluding CLL: whole follow-up period	I	5	1	2	0	0	0	0.52	0.94	Negative
	E <sub>i</sub> <sup>d</sup>	5.23	1.51	0.66	0.13	0.47	0.01			
Leukaemia excluding CLL: 2-25 years	I	1	0	1	0	0	0	0.27	0.27	Negative
	E <sub>i</sub> <sup>d</sup>	1.30	0.41	0.17	0.07	0.05	0			
Multiple myeloma <sup>e</sup> : 10+ years	I	3	2	1	1	1	0	0.12	0.22	Positive
	E <sub>i</sub> <sup>d</sup>	5.31	1.31	0.62	0.30	0.40	0.06			
All neoplasms except leukaemia and multiple myeloma: 10+ years	I	443	113	41	20	44	8	0.57	0.85	Negative
	E <sub>i</sub> <sup>d</sup>	438.47	104.48	51	25.49	40.34	9.23			

**Notes**

- (a) One-sided test that the trend is greater, or less than, zero.
- (b) Two-sided test that the trend is greater, or less than, zero.
- (c) Negative: Rate tends to decrease with increasing recorded dose. Positive: Rate tends to increase with increasing recorded dose.
- (d) E<sub>i</sub> is calculated internally, assuming no trend in cancer incidence with dose.
- (e) Values for the wider definition of multiple myeloma (ie. ICD 9<sup>th</sup> revision codes 203.0, 203.1, 238.6 and 273.1) are identical.