

**Table 2.11. Numbers and relative risks (RR) with 95% confidence intervals for cancer at selected sites plus all causes of death in five cohort analyses of Thorotrast-treated patients**

Cancer site	Germany (Becker <i>et al.</i> , 2008)		Denmark & Sweden (Travis <i>et al.</i> , 2003)	Japan (Mori <i>et al.</i> , 1999b)	Portugal (dos Santos Silva <i>et al.</i> , 2003)	USA (Travis <i>et al.</i> , 2003)			
	Mortality						Incidence	Mortality	Mortality
	No. RR <sup>a</sup>	No. RR <sup>a</sup>					No. RR <sup>b</sup>	No. RR <sup>b</sup>	No. RR <sup>b</sup>
Lip, oral cavity & pharynx	6 2.9 (0.6-17.9)	2 3.0 (0.2-177)				4 <sup>c</sup> ∞ <sup>d</sup> (0.4-∞)			
Oesophagus	5 1.2 (0.3-4.7)	4 ∞ <sup>d</sup>							
Stomach	25 0.9 (0.5-1.6)	8 0.9 (0.3-3.5)	13 2.7*(1.1-7.9)						
Colon	4 0.3 (0.1-1.0)	2 0.6 (0.1-4.4)	16 1.5 (0.7-3.0)			5 ∞ <sup>d</sup> (0.5-∞)			
Rectum	6 1.1 (0.3-3.5)	2 1.1 (0.1-15.3)	8 1.8 (0.6-5.3)						
Liver	238 71* (32-195)	41 34* (8.9-292)	136 ∞* (44.2-∞)	143 35.9* (24.2-53.4)	67 42.4* (13.9-210)	22 22.5* (1.8-463)			
Extrahepatic bile ducts and	} 34 <sup>e</sup> 8.1*(3.4-23.6)	7 <sup>e</sup> 3.9 (0.7-39)	17 26.4* (4.3-1134)						
Gallbladder			10 11.0* (1.3-391)						
Pancreas	15 5.5*(1.7-22.7)	3 1.3 (0.2-9.6)	11 3.8* (1.3-12.3)			3 0.9 (0.1-4.4)			
Peritoneum	1 1.2 (0.0-94)	2 ∞ <sup>d</sup>	} 5 ∞* <sup>d,f</sup> (1.7-∞)						
Other digestive	3 2.0 (0.3-14.9)	6 4.5 (0.8-46)							
Larynx	6 3.8 (0.7-39)	0 -							
Lung	42 1.1 (0.7-1.7)	6 1.2 (0.3-4.5)	28 1.3 (0.7-2.2)	11 2.0* (1.0-3.9)	4 9.07 (0.90-447)	11 3.3 (0.7-13.7)			
Pleura	5 ∞ <sup>d</sup>	1 ∞ <sup>d</sup>							
Bone	7 2.5 (0.6-15.3)	3 3.0 (0.2-158)	0 -		5 7.60 (0.85-359)	2 ∞ <sup>d</sup> (0.1-∞)			
Connective tissue	0 0	2 ∞ <sup>d</sup>							
Melanoma of skin	0 0	1 ∞ <sup>d</sup>	2 0.4 (0.1-2.1)						
Female breast		9 0.7 (0.3-1.6)	27 1.6 (0.9-2.8)			6 0.9 (0.3-7.2)			
Prostate	18 2.0*(1.0-4.3)		14 4.5*(1.6-16.3)			1 0.2 (0.0-5.1)			
Testis	1 ∞ <sup>d</sup>		2 5.2 (0.2-165)						

**Table 2.11. Numbers and relative risks (RR) with 95% confidence intervals for cancer at selected sites plus all causes of death in five cohort analyses of Thorotrast-treated patients**

Cancer site	Germany (Becker <i>et al.</i> , 2008)		Denmark & Sweden (Travis <i>et al.</i> , 2003)	Japan (Mori <i>et al.</i> , 1999b)	Portugal (dos Santos Silva <i>et al.</i> , 2003)	USA (Travis <i>et al.</i> , 2003)
	Mortality		Incidence	Mortality	Mortality	Mortality
	Males No. RR <sup>a</sup>	Females No. RR <sup>a</sup>	No. RR <sup>b</sup>	No. RR <sup>b</sup>	No. RR <sup>b</sup>	No. RR <sup>b</sup>
Cervix uteri		3 0.7 (0.1-3.8)	6 0.6 (0.2-1.8)			
Cervix corpus		2 0.3 (0.0-1.8)	5 0.6 (0.2-1.8)			
Ovary		3 0.8 (0.1-4.4)	9 4.3*(1.1-24.3)			
Bladder	5 2.7 (0.5-17.3)	2 2.8 (0.1-165)	8 0.8 (0.3-1.9)			3 ∞ <sup>d</sup> (0.2-∞)
Kidney	5 0.9 (0.2-3.0)	1 ∞ <sup>d</sup>	12 5.7* (1.9-21.0)			1 ∞ <sup>d</sup> (0.1-∞)
Brain/CNS	19 3.3*(1.3-9.2)	17 17.0*(2.7-711)	- <sup>g</sup> 2.5*		10 2.94 (0.91-11.0)	21 1.3 (0.6-3.7)
Thyroid	1 ∞ <sup>d</sup>	2 2.0 (0.1-118)				
Endocrine glands	3 3.0 (0.2-158)	-				
Other & ill-defined	6 1.1 (0.3-3.7)	6 2.0 (0.4-12.4)				
Unspecified	30 6.3*(2.8-15.8)	16 5.3 (1.7-22)				
All haematopoietic	46 5.7*(2.9-12.2)	11 2.1 (0.7-6.9)				13 9.8 (0.9-37.0)
NHL	7 3.6 (0.8-22)	2 2.5 (0.1-148)	4 1.6 (0.3-11.4)			
Hodgkin lymphoma	1 0.9 (0.0-73)	0 0	1 1.5 (0.1-81.8)			1 ∞ <sup>d</sup> (0.0-∞)
Multiple myeloma	6 9.2*(1.1-425)	1 1.3 (0.0-98)	5 3.7 (0.5-30.9)			1 1.8 (0.1-51.6)
Lymphoid leukaemia	2 3.2 (0.2-187)	1 1.5 (0.0-118)	6 <sup>h</sup> 9.3 (0.9-357)			
Myeloid leukaemia	11 7.6*(1.7-70)	5 3.0 (0.5-32)				
Leukaemia other than chronic lymphoid			28 15.2* (4.4-150)	10 <sup>i</sup> 12.5* (4.5-34.7)	6 10.2* (1.24-471)	8 <sup>i</sup> 16.8 (0.6-212)
All malignancies	542 3.7*(3.1-4.3)	165 2.3*(1.7-3.0)	480 3.4* (2.9-4.1)		161 <sup>j</sup> 6.72* (4.83-9.51)	114 4.0* (2.5-6.7)
All causes of death	1709 1.9*(1.7-2.0)	604 1.8*(1.6-2.1)		375 2.5* (2.2-2.8)	502 2.63* (2.28, 3.04)	

\*  $p < 0.05$

- a Adjusted for age and calendar period. Relative risks were not provided for both genders combined.
- b Adjusted for age, gender and calendar period.
- c Buccal cavity and pharynx.
- d Number in controls is 0; therefore, RR is infinite.
- e Values are for extrahepatic bile ducts and gallbladder cancers combined. In an earlier analysis of the German cohort, van Kaick *et al.* (1999) reported relative risks of 7.8 ( $p<0.05$ ) for cancer of the extrahepatic bile ducts and 2.7 for gallbladder cancer.
- f Values for peritoneum and other digestive cancers combined.
- g Value not given.
- h Chronic lymphoid leukaemia.
- i All leukaemia.
- j All malignant and benign cancers

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