

ONSET OF EXPOSURE	
	Total
7.1%	72
7.2%	6
7.4%	16
7.7%	37
7.8%	28
7.9%	30
	191
	380
	252
	632

extent and, as seen in Table I, is still a very minor affair.

MESOTHELIOMA AMONG UNITED STATES INSULATION WORKERS

The first mesothelioma reported in which occupational asbestos exposure was described, occurred in an insulation worker, a member of the I.A.H.F.I.A.W., in 1946.¹⁷ It is not known whether cases occurred before then, but they have been noted since.¹⁸ We have seen 22 cases, 1947-1968, in our group of men, as detailed above. *Every one has occurred in an insulation worker who began work before 1930* (Table 12). The mean lapsed period from onset of exposure to death

of mesotheliomas among the 836 men in our study who began work in 1943 or later (Table 8).

These considerations are relevant only to conditions in the United States, among insulation workmen. They do not disprove a special role for crocidolite elsewhere, in other circumstances. They should, however, engender caution in relying on other asbestos varieties always to be significantly less likely to cause mesothelioma. The relative mesothelioma hazard for each fiber variety is still to be defined in humans. At this time our data suggest that it would be prudent to regard all fiber varieties as potentially hazardous, and to utilize appropriate industrial hygiene measures for all.

TABLE 12: LAPSED PERIOD FROM ONSET OF EXPOSURE TO DEATH OF 22 CASES OF MESOTHELIOMA, 1947-1968, AMONG 632 INSULATION WORKERS FOLLOWED PROSPECTIVELY FROM JANUARY 1, 1943

Patient	Site	Year Onset Employment	Year of Death	Age at Death	Years from Onset
1. A.C.	Pleural	1922	1947	60	25
2. A.M.	Pleural	1923	1956	58	33
3. A.S.	Pleural	1929	1961	54	32
4. J.B.	Pleural	1929	1963	54	34
5. F.C.	Pleural	1927	1964	53	37
6. T.C.	Pleural	1925	1955	52	30
7. E.M.	Peritoneal	1910	1949	61	39
8. F.S.	Peritoneal	1923	1956	50	33
9. M.C.	Peritoneal	1924	1956	52	32
10. H.H.	Peritoneal	1918	1959	60	41
11. J.B.	Peritoneal	1905	1963	86	58
12. H.D.	Peritoneal	1925	1963	66	38
13. W.N.	Peritoneal	1919	1964	63	45
14. A.C.	Peritoneal	1918	1964	68	46
15. J.D.	Peritoneal	1924	1965	58	41
16. J.L.G.	Peritoneal	1929	1965	53	36
17. J.O'C.	Peritoneal	1917	1966	79	49
18. G.V.	Peritoneal	1924	1967	59	43
19. H.C.	Peritoneal	1929	1967	57	38
20. J.P.	Peritoneal	1929	1968	58	39
21. R.B.	Peritoneal	1907	1968	83	61
22. H.T.	Peritoneal	1929	1968	56	39

	Total
	156,000
	204,800
	208,407
	175,201
	270,268
	378,000
	728,700
	740,400
	669,580
	719,700

was 34.8 years for pleural mesothelioma and 43.0 years for peritoneal.

As detailed, crocidolite exposure of United States insulation workers, to the extent that it occurred, could not have been very extensive before 1940. Therefore, if a long lapsed period is required for asbestos-induced mesothelioma, crocidolite exposure alone cannot easily explain the mesotheliomas seen among insulation workers in the United States. Of course, it may be that crocidolite's virulence makes for shorter lapsed periods between onset of exposure and death. But if this is so, it is difficult to explain the absence

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it can be proven used before 1930 States. Rather, if only have been before, crocidolite insulation workers before 1940 is un- any significant

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