

Chapter

1. Asbestos Exposure Assessment, Risk Identification, and Substitutes

Section

C. Epidemiology of ARDs

No./Title

27. Asbestos related mortality in Northern Ireland: 1985–1994

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Bibliographic ID

J Public Health Med 1999 Mar;21(1):95-101

Introduction

Asian context

The study presents a model of analyzing all deaths in a region with shipbuilding industry.

Critical appraisal

All deaths in Northern Ireland between 1985 and 1994 were studied, in which an asbestos related disease was mentioned anywhere on the death certificate. Asbestos related diseases comprise a heavy disease burden although the upward trend may be on the wane.

Unique keywords

Northern Ireland, asbestosis, mesothelioma, shipbuilding

Abstract

Background: The association between Belfast and research into the hazardous effects of asbestos exposure goes back many years. This paper aims to update previous papers and review the burden of asbestos related disease in Northern Ireland today.

Methods: A study was carried out of all deaths in Northern Ireland between 1985 and 1994 inclusive, in which an asbestos related disease was mentioned anywhere on the death certificate.

Results: During this 10 year period, 527 asbestos related deaths were recorded; 88 per cent of these were in men. A total of 410 (77.8 per cent) were registered as the primary cause of death but only 405 (76.9 per cent) of cases were the subject of an autopsy. Standardized rates of pleural cancer in males have been increasing at 3.2 per cent per year though the trend was not significant. Lower rates in the last two years may herald the commencement of a decline. Deaths were clustered around the Belfast estuary (i.e., transition zone between river and ocean environment), the site of Northern Ireland's shipbuilding industry. High proportional mortality ratios were demonstrated for occupations associated with the shipbuilding and construction industries. Evidence is presented that casts doubt on the attribution of peritoneal cancers in females to asbestos exposure. If lung cancers are included, there may be an average of 81 asbestos related deaths in Northern Ireland every year.

Conclusions: Asbestos related diseases continue to extract a heavy burden of ill health in Northern Ireland today. There are some indications that the upward trend may be on the wane but confirmation of this will have to await further data. Measures to reduce exposure in the workplace to both asbestos and to tobacco smoke are the only means of reducing this burden.



Annotation

Fact 1

- In a study of all deaths in Northern Ireland, a total of 527 asbestos-related deaths were recorded between 1985 and 1994 in which pleural or peritoneal cancer or asbestosis were mentioned as either the underlying or the contributory cause of death.

Fact 2

- Standardized mortality rates per 100,000 from asbestosis, pleural and peritoneal cancers among males were 1.06 (0.86-1.27), 3.07 (2.72-3.43) and 0.41 (0.40-0.42), respectively.

Fact 3

- The rate of death from male pleural cancer between 1985 and 1994 had an average increase of 3.2 per cent per year.

Fact 4

- The distribution of male pleural cancer death was high in the hub (i.e., center) of the country's shipbuilding industry.

Fact 5

- Most occupations associated with shipbuilding such as plate metal workers, fitters, fitter's mates and sheet metal workers were prominent amongst those dying from pleural cancer.

References