surveillance and intervention studies on respiratory cancers in asbestos-exposed workers

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authors' objectives

To evaluate the published literature on the effectiveness of surveillance and preventive interventions among workers exposed to asbestos.

searching

medline and cancerlit were searched from 1969 to 1996, and the iarc (international agency for research in cancer) directories of ongoing research in cancer epidemiology from 1977 to 1996. summary reviews on the effectiveness of smoking cessation programmes were also examined.

study selection

study designs of evaluations included in the review

any study design was considered.

specific interventions included in the review

surveillance programmes in factories or industrial sectors, at the national or subnational level (some of the programmes contained a health education component, often relating to smoking cessation) and chemoprevention trials involving beta-carotene and retinol.

reference standard test against which the new test was compared

the review did not include any diagnostic accuracy studies that compared the performance of the index test with a reference standard of diagnosis.

participants included in the review

people exposed to asbestos through their work were included.

outcomes assessed in the review

various outcomes were assessed, including incidence of respiratory and lung cancer, smoking cessation rates, and participation rates.

how were decisions on the relevance of primary studies made?

the authors do not state how the papers were selected for the review, or how many of the authors performed the selection.

assessment of study quality

the quality of relevant studies was not assessed.

data extraction

the authors do not state how the data were extracted for the review, or how many of the authors performed the data extraction.

methods of synthesis

how were the studies combined?

the studies were combined in a narrative review with the details of individual studies presented in tabular format.

how were differences between studies investigated?
The results of each study were discussed separately.

**Results of the review**

Surveillance programmes in factories (8 studies with approximately 30,000 participants), surveillance programmes at the national level (4 studies with approximately 240,000 participants) and chemoprevention trials (3 studies with 20,393 participants including 14,254 smokers).

Surveillance programmes in factories: 4 of the 8 studies did not present any results, 2 studies reported declines in smoking rates, and 2 studies reported participation rates for the health education component only.

Surveillance programmes at the national level: high rates of respiratory cancer were detected in asbestos workers.

Chemoprevention trials: 1 study is still ongoing, 1 study reported no differences in sputum atypia between treatment and placebo group, 1 study reported preliminary results of lower rates of lung cancer in those given retinol compared with those given beta-carotene, and 1 study was stopped due to excess lung cancer in the group given beta-carotene and retinol.

**Authors' conclusions**

Few of the surveillance programmes in factories have reported results on their efficacy. National surveillance programmes have reported high rates of respiratory cancer in asbestos workers. The results of chemoprevention trials suggest that chemoprevention is not a viable option for asbestos-exposed workers as the trials to date have provided no evidence of protection.

**CRD commentary**

The sources used to identify studies were very limited and it is likely that relevant studies have been missed. The inclusion criteria were not well defined, and no attempt was made within this review to appraise the quality of the included studies.

**Funding**

Italian Association for Cancer Research; BIOMED-2, grant number BM4-CT95-1100.

**Bibliographic details**


**PubMedID**

9167231

**Indexing Status**

Subject indexing assigned by NLM

**MeSH**

Anticarcinogenic Agents /therapeutic use; Asbestos /adverse effects; Chemoprevention; Humans; Occupational Diseases /epidemiology /prevention & control; Population Surveillance /methods; Respiratory Tract Neoplasms /epidemiology /prevention & control

**AccessionNumber**

1199700674

**Date bibliographic record published**

Database of Abstracts of Reviews of Effects (DARE)
Record Status
This is a critical abstract of a systematic review that meets the criteria for inclusion on DARE. Each critical abstract contains a brief summary of the review methods, results and conclusions followed by a detailed critical assessment on the reliability of the review and the conclusions drawn.