Exposure to airborne asbestos in Jamaican hospitals.

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Abstract

OBJECTIVE: Asbestos is an established human carcinogen and has been identified at 16 of 26 Jamaican hospitals surveyed. We sought to determine if hospital employees are exposed and if current asbestos exposure in Jamaican hospitals differed by job category.

METHOD: At two of the largest hospitals with more than 10 permanent maintenance workers and where over 67% of bulk samples analysed contained asbestos, three groups of employees selected by stratified random sampling participated in a personal air sampling study for asbestos. One hundred and thirty-two personal air samples and 32 area samples were collected and analysed for asbestos fibres utilizing phase contrast microscopy (PCM) and transmission electron microscopy (TEM).

RESULTS: Twenty-four (14.6%) air samples had fibre counts above the limit of detection (LOD) for the analytical method (PCM), ranging from 0.002 f/cc to 0.013 f/cc. The fibres met the dimensional characteristics of asbestos fibres. There was no difference in the median fibre concentration to which the groups of employees were exposed. Further testing of samples which had fibre counts above the LOD using TEM confirmed that the fibres were not asbestos.

CONCLUSION: Despite not finding asbestos fibres in the air samples, most of the asbestos containing building material (ACBM) found in the hospitals was friable and in a poor condition indicative of fibre release. We recommend an ongoing monitoring programme for airborne...
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asbestos fibres in hospitals until an abatement programme can be undertaken by the regulatory agencies in the country.

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