

Guidance for appointed doctors on the Control of Asbestos Regulations 2006

Introduction

1 This guidance informs appointed doctors about how to conduct medical surveillance in workers exposed to asbestos. It may also provide useful information for other health professionals with an interest in this subject. It is important that, as an appointed doctor, you are familiar with both this guidance and the Approved Code of Practice and guidance: *Work with materials containing asbestos* (L143).¹ You should also be familiar with your general responsibilities and rights as described in the Health and Safety Executive's (HSE's) *General guidance for appointed doctors*.²

2 Regulation 22 of the Control of Asbestos Regulations 2006 (CAR), places a duty on employers to maintain a health record for employees who work with asbestos and to ensure they receive statutory medical surveillance (subject to regulation 3(2)). The Regulations also apply to self-employed people.

3 The control limit for all types of asbestos means a concentration of asbestos in the atmosphere of 0.1 fibres per cubic centimetre of air averaged over a continuous period of four hours (regulation 2(1) of CAR).

Asbestos-related diseases

Asbestos corns

4 These are discrete nodules in the skin caused by implantation of asbestos fibres. Although sometimes painful, they are usually self-limiting and do not have any serious consequences.

Pleural thickening

5 Work with asbestos is associated with the development of pleural thickening, which may be in the form of discrete fibrous or calcified plaques, or diffuse pleural thickening. These do not usually carry a serious prognosis, but if extensive, may impair pulmonary function in a minority of cases. Pleural thickening or plaques do not develop into mesotheliomas.

Asbestosis

6 Asbestosis is a fibrotic, interstitial lung disease which develops insidiously as a result of inhaling asbestos fibres. It usually affects the lung bases first. The diagnosis is made by radiological examination (chest X-ray and/or CT scan) with detection of late inspiratory crackles and positive work history for past asbestos

exposure. Asbestosis in the early stages does not necessarily impair fitness for work. As the disease progresses, lung function may become impaired. In more severe cases, finger clubbing might occur, and death may result from pulmonary or congestive cardiac failure.

7 The removal of affected workers from further exposure appears to have little influence on subsequent progress of the disease. The latency period between exposure and the first radiological signs of fibrosis is many years. Current exposure profiles are much lower than the very large fibre loads previously associated with the mining and production industry. In addition, control measures have significantly improved. For these reasons, it is estimated that asbestosis will no longer continue to cause significant morbidity and mortality as it has done in the past. The appointed doctor should take account of these issues when considering whether a chest X-ray is warranted (see paragraphs 23–25).

Lung cancer

8 Workers exposed to asbestos have an increased risk of developing lung cancer. Cigarette smoking further increases the risk and these two risk factors are thought to multiply together. Ex-smokers show a significantly lower excess risk than current smokers. Therefore, smokers should always be encouraged to stop smoking. Lung cancer induced by asbestos exposure is indistinguishable from that caused by other agents.

Mesothelioma

9 Malignant mesothelioma of the pleura and peritoneum are associated with exposure to asbestos. However, occasionally, tumours have arisen in young people with no apparent exposure to asbestos. Often there has been a family history of chest malignancy so this may represent a peculiar genetic predisposition.

10 Smoking does not influence the risk of mesothelioma. Early symptoms such as weight loss, fever and night sweating are often vague. Chest pain, breathlessness on exertion and/or pleural effusion are frequently present at the time of diagnosis. Peritoneal mesothelioma may result in abdominal discomfort, a change in bowel habit and weight loss. Radiological appearances vary with the stage at which the tumour is first detected and whether or not it is associated with effusion.

11 There is a long latent period between exposure and presentation of the tumour, which may range from 15 to 60 years. Exposure to asbestos may have been brief as well as remote in time, although most cases have been associated with long periods of exposure to asbestos dust.

Other cancers

12 An association between cancers of the larynx and gastrointestinal tract (colorectal) and exposure to asbestos has been suggested. However, routine screening for these cancers is not at present considered feasible.

RIDDOR and Industrial Injuries Disablement Benefit

13 Asbestosis, lung cancer and mesothelioma in employees exposed to asbestos are reportable diseases under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 (RIDDOR).^{3, 4} Employers and self-employed people have a duty to report these diseases when informed in writing of the specific diagnosis by a registered medical practitioner.

14 Diffuse pleural thickening (if it results in obliteration of the costophrenic angle), asbestosis, lung cancer and mesothelioma arising from previous exposure to asbestos are 'prescribed diseases'. This means affected workers may be able to claim Industrial Injury Disablement Benefit. They should contact the Department for Work and Pensions about their eligibility for benefit. Completed claim forms should be supported by a letter from the appointed doctor.

Medical surveillance

15 Medical surveillance should consist of initial and periodic medical examinations. The first medical examination must be conducted no more than two years before beginning exposure to asbestos. Periodic medical examinations must be conducted at intervals of not more than two years while exposure continues. This interval may be shortened at the discretion of the appointed doctor. The findings can be recorded on the health surveillance record form (FODMS100).⁵

16 The purposes of medical surveillance are to:

- **advise** employees about fitness for work with asbestos (see paragraphs 20–22 and 27);
- provide workers with objective information about their current state of health;
- alert workers to any early indications of asbestos-related disease and to advise them on whether or not they should continue working with asbestos;
- to warn employees of the increased risk of lung cancer from the combined exposure of smoking and asbestos;
- alert management to any particular problems which may require the provision of a special respirator; and
- emphasise the need for employees to use available control measures and follow good working practices.

17 Medical surveillance offers employees an opportunity to ask the appointed doctor for advice on any concerns they may have. In addition, affected workers can be informed of Industrial Injury Disablement Benefit that might be applicable (see paragraph 14).

18 Regulation 22 of CAR requires that medical surveillance is 'adequate'. In order to comply with this, your examination should consist of at least:

- completion of a medical surveillance form (FODMS75)⁶ for each person who is medically examined – this requires information from both the appointed doctor and employer (or self-employed person) – further information is given in paragraphs 32–35;
- taking a medical and occupational history, with particular reference to respiratory conditions, smoking habits and previous exposure to asbestos or to other fibres or dusts;
- completion of a respiratory symptom questionnaire, such as that shown in Appendix 1;

- a competent clinical examination, with emphasis on the respiratory system, and particular reference to restriction of chest expansion, the presence of basal crackles and finger clubbing; and
- measurement of lung function, including FEV1 and FVC.

19 The results of pulmonary function testing, together with a note of any abnormal findings, should be communicated, with the worker's consent, to their GP. It would be prudent to have a written record in the medical file indicating that consent was requested and given.

20 Some workers who are examined will be involved in the removal of asbestos insulating material. They are generally a self-selected and able-bodied group. This work, however, may be hot, uncomfortable and physically demanding. Furthermore, it usually requires wearing of negative pressure or power-assisted respirators equipped with filter cartridges, for long periods of time. This may make the work even more physically demanding due to an increased breathing resistance and/or the weight of the equipment. Individuals with an impaired ability to wear such respirators because of pre-existing lung disease (for instance unstable and/or exercise induced asthma) may not be fit enough to enter a 'respirator zone' and should, therefore, be warned against this type of employment.

21 Similarly, persons who have diseases that may render them liable to acute and incapacitating illnesses should also be warned against entering enclosures. They may put themselves as well as others at risk during an emergency if their respiratory protective equipment (RPE) has to be removed quickly for first aid purposes. The Approved Code of Practice to regulation 22 of CAR states: 'If the examination reveals the presence of any potentially limiting health conditions then a decision should be reached on whether a general fitness assessment is required in addition to the asbestos medical examination.' Where the employee has a disease or condition (such as severe asthma, epilepsy, diabetes mellitus or cardiovascular impairment), the risk assessment would determine whether there is a need for additional health assessment and feedback to the employer beyond CAR certification (see paragraph 27).

Fitness assessments in relation to other regulations

22 Due to the nature of the work, fitness assessments may be required under regulations such as the Management of Health and Safety at Work Regulations 1999⁷ or Confined Spaces Regulations 1997.⁸ Under these circumstances, the employer should consider formally arranging for a fitness for work examination to be carried out in addition to the asbestos medical. Therefore, it is prudent for the appointed doctor to verify the specific job requirements with the employer and determine the need for such an additional health assessment. This is particularly relevant where, as part of the asbestos medical examination, the appointed doctor has advised the employee that they are not fit for the conditions encountered during work with asbestos, or has advised them to cease work with asbestos.

Use of ionising radiation

23 A full size PA chest X-ray may only be justified on individual clinical grounds, taking account of the criteria that apply to the use of ionising radiation in medical surveillance examinations, as detailed in the Ionising Radiation (Medical Exposure) Regulations 2000 (as amended 2006).^{9, 10} Therefore, the indication for a radiological examination should be made on an individual case basis. The appointed doctor should consider the medical and occupational history, respiratory symptoms and findings on clinical examination, together with the potential information which could be obtained through radiography and its clinical relevance. This means that routinely obtaining a chest X-ray at every examination cannot be justified.

24 Baseline radiography prior to potential exposure to asbestos has limited value in the clinical context of asbestos-related disease, given the long latency period. Therefore, routinely obtaining a baseline chest X-ray cannot be justified.

25 If the appointed doctor decides that on clinical grounds there is sufficient justification to request a chest X-ray as part of the medical examination, the reasons for the decision should be clearly documented in the medical record. The appointed doctor must be satisfied that a recent chest X-ray is not available from other sources. This will avoid duplication of chest X-rays within a short time period.

Certificate of medical examination

26 After each medical examination, the appointed doctor must complete an **original** Certificate of Medical Examination (FODMS72A, available from HSE offices administering appointed doctor work) for each person examined. This certificate should be passed to the employer (or self-employed person). The employee should be given their own **original** certificate. These certificates should be kept in a safe place for at least four years after the date they were issued.

27 Issuing a certificate following the medical examination only provides evidence that statutory medical surveillance as required by CAR has been carried out. It does not constitute an opinion that the employee concerned is fit or unfit to work with asbestos. Certificates of fitness or unfitness for work with asbestos under CAR are not required and must not be issued under these regulations. However, other relevant regulations, a separate contractual duty with the employer or consideration of medical ethics, may mean the appointed doctor is obliged to declare someone partially or wholly unfit for the wider workplace requirements, which may be associated with asbestos work (see paragraphs 20–22).

28 Occasionally, employers, or HSE or local authority inspectors, may request confirmation that an individual has undergone a statutory medical examination under CAR. This might arise, for example, where there is a need to determine if a Certificate of Medical Examination is genuine. The appointed doctor can confirm the person's name, National Insurance number and date of examination, but clinical details should remain confidential.

Records

Health record

29 Under regulation 22 of CAR, employers have a duty to maintain a health record on each employee who is exposed to asbestos (see paragraph 2). The health record should contain at least the information detailed in the Approved Code of Practice to regulation 22.

30 The health record is not a medical confidential record. It contains demographic and job exposure information and the dates of any medical examinations as required by regulation 22. It must be kept for at least 40 years from the date of the last entry made in it. However, it is advisable to keep it until the employee would reach the age of 80 years or for 40 years from the date of the last entry, whichever is longer.

Clinical record

31 There are several methods of maintaining clinical records, but irrespective of their form, they must be made available to HSE on request. The records must include details of tests conducted as part of the medical examination. No clinical records should be destroyed without prior consultation with HSE. They should at least be kept for the same time period as health records (see paragraph 30).

Statistical returns

32 All medical surveillance forms, FODMS75,⁶ should be submitted to the Health and Safety Laboratory (HSL) when requested, accompanied by the general statistical form MS21 (sent directly to appointed doctors by HSL). The latter shows the number of medical examinations carried out under regulations. The number of examinations under CAR shown on form MS21 must correspond with the number of FODMS75 forms attached.

33 The first medical examination carried out under CAR should be treated as an initial examination and form FODMS75 should be completed in full. For subsequent examinations, only part of the form needs to be completed.

34 The information on FODMS75 forms is entered onto the Asbestos Worker Database which is maintained by HSL. The database has two important functions:

- it enables monitoring of the number of workers currently exposed, or liable to be exposed, to asbestos in their work; and
- it enables long-term follow-up for cancer and other fatal diseases, and hence the quantification of the risk of these diseases, in workers who have had asbestos exposure. Information on the type of work and type of RPE worn enables the estimation of risks for groups of workers with different levels of exposure. The effectiveness of CAR in controlling risks can then be evaluated.

35 To achieve these objectives, the items of information requested on form FODMS75 must be entered as completely and accurately as possible. The National Insurance number is important since it is used as a unique identifier on the database. It is not used for any other purpose.

Incidental exposure

36 Employers or employees may on occasion approach the appointed doctor for advice when a suspected incidental exposure to asbestos fibres has occurred. While any concern from potentially-exposed individuals is understandable, it is important to be able to give objective advice based on the exposure circumstances. If possible, the appointed doctor should try to ascertain the type of asbestos, the duration and type of work, any RPE/personal protective equipment (PPE) worn and, if available, the results of any air measurements. This information would usually help to make an estimate of the likely exposure dose. This could then be used to make a rough estimate of any potential increase in cancer risk. The possible increase in cancer risk from a short, incidental and low-dose exposure is likely to be insignificant.

37 It is important to remember that the diameter of an asbestos fibre is several magnitudes below the resolution capability of a chest X-ray. Given this, and the long latency period, there is no reason to subject individuals with a suspected incidental exposure to even a small dose of ionising radiation. HSE recommends that the employer investigates any incident and that the employee asks their GP to make an entry in their medical record for future reference. For asbestos workers, any abnormal exposure situation beyond their normal exposure assessments should be documented in the health record kept by the employer. See 'Further information' for additional guidance on inadvertent asbestos exposure.

Employers' Liability Compulsory Insurance

38 Appointed doctors may be approached to undertake medical examinations for Employers' Liability Compulsory Insurance (ELCI). While such medical examinations may be a condition of employment, they are not required under CAR. Whether or not to undertake such examinations is a matter for the appointed doctor to decide, but they should never be confused or combined with statutory medical examinations under CAR.

39 Periodic full size PA chest X-rays may be required by the insurance company for ELCI or for wider medico-legal purposes. The chest X-ray should only be performed with the individual's informed consent, taking full account of the Ionising Radiation (Medical Exposure) Regulations 2000 (as amended in 2006).^{9, 10}

40 If a recent chest X-ray is available, this X-ray and radiologist's report should be used for the purpose of ELCI examinations. This will avoid duplication of chest X-rays within a short time period. Another doctor who is conducting an ELCI medical examination may request sight of a radiologist's report on a chest X-ray taken for statutory medical surveillance. Where this is the case, the appointed doctor can comply with the request, subject to obtaining informed consent from the individual and prompt return of the report. Confidential medical information must **not** be passed to the employer or any other third party without consent from the examined person.

Appendix 1 Respiratory symptom questionnaire

- 1 Have you ever, or since your last examination had:
 - a) an injury or operation affecting your chest? *YES/NO*
 - b) pleurisy? *YES/NO*
 - c) pulmonary tuberculosis? *YES/NO*
- 2 Do you usually cough during the day (or at night when on night work)? *YES/NO*
- 3 Do you usually bring up any phlegm from your chest on most days (or nights) for as much as three months each year? *YES/NO*
- 4 Do you usually get short of breath when walking with people of your own age on level ground? *YES/NO*
- 5 During the past three years, or since your last examination, have you had any chest illness, which has kept you from your usual activities for as much as a week? *YES/NO*

If *NO* go to question 8. If *YES* continue.

- 6 Did you bring up more phlegm than usual in any of these illnesses? *YES/NO*

If *NO* go to question 8. If *YES* continue.

- 7 How many illnesses like this have you had in the past three years or since your last examination?

Smoking

- 8 Have you ever smoked? *YES/NO*

If *NO* go to question 11. If *YES* continue.

- 9
 - a) Do you smoke at present? *YES/NO*
Have you given up smoking in the last month? *YES/NO*
 - b) How old were you when you started smoking regularly?
Enter age in years (a regular smoker is defined as one who has smoked as much as one cigarette a day, one small cigar a day or one ounce of tobacco a month, for as long as a year).
 - c) How many manufactured cigarettes do you usually smoke or were you smoking per day?
 - d) How much tobacco do you usually smoke or were you smoking per day?
Enter number of grams (1 ounce = 28 grams).
 - e) How much pipe tobacco do you usually smoke or were you smoking per day?
Enter number of grams (1 ounce = 28 grams).
 - f) How many small cigars do you usually smoke or were you smoking per day?
 - g) How many large cigars do you usually smoke or were you smoking per week?

References

- 1 *Work with materials containing asbestos. Control of Asbestos Regulations 2006. Approved Code of Practice and guidance* L143 HSE Books 2006 ISBN 978 0 7176 6206 7 www.hse.gov.uk/pubns/priced/l143.pdf
- 2 *General guidance for appointed doctors. Role and responsibilities in statutory medical surveillance* HSE 2011 www.hse.gov.uk/pubns/ms30.pdf
- 3 *A guide to the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995* L73 (Third edition) HSE Books 2008 ISBN 978 0 7176 6290 6 www.hse.gov.uk/pubns/priced/l73.pdf
- 4 *Incident at work?* Flyer MISC769 HSE Books 2007 www.hse.gov.uk/pubns/misc769.pdf
- 5 Form FODMS100 is available at: www.hse.gov.uk/forms/health/fodms100.pdf
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- 9 *The Ionising Radiation (Medical Exposure) Regulations 2000* SI 2000/1059 The Stationery Office 2000 ISBN 0 11 099131 1
- 10 *The Ionising Radiation (Medical Exposure) (Amendment) Regulations 2006* SI 2006/2523 The Stationery Office 2006 ISBN 0 11 075114 0

Further information

Further information on asbestos is available on HSE's asbestos health and safety website at: www.hse.gov.uk/asbestos/index.htm.

Further information on inadvertent asbestos exposure is available on HSE's asbestos health and safety website at: www.hse.gov.uk/foi/internalops/fod/oc/200-299/265-48.htm. This document is aimed at HSE and local authority inspectors and contains links to additional guidance for employers, employees and members of the public, and GPs and occupational health professionals.

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