key points

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Mesothelioma accounts for less than 1% of all cancers in England, Wales and Northern Ireland. There are almost 2,500 new diagnoses a year, of which 96% are pleural. The median age at diagnosis for malignant pleural mesothelioma (MPM) is 76 years. The majority of cases occur in men, most commonly following occupational exposure to asbestos. There is a latent period which is usually 30-40 years between exposure and disease development. High risk occupations include building and associated trades; working in asbestos sheet production or the manufacture of brake and clutch linings; dock and shipyard workers and launderers.

Cases may also be attributed to para-exposure, for example women exposed to asbestos through laundering their husband's work clothes, or living near an asbestos factory. Other causes of MPM include exposure to ionising radiation, and rarely familial cases can occur, associated with a mutation of the breast cancer associated protein 1 (BAP1) gene. Tobacco smoking is not a risk factor for developing MPM.

Symptoms are often insidious and non-specific, so patients may present recurrently to their GP prior to diagnosis, despite their initial chest X-ray being normal. Common symptoms include: chest pain; shortness of breath; fevers, chills or sweats; weakness or fatigue; cough; weight loss; anorexia; and heaviness in the chest. Pleural effusion is the most common sign.

A chest X-ray is usually the first-line investigation; 94% of patients with MPM have a unilateral pleural effusion, although the chest X-ray may be normal or show another asbestos-related lung disease. Pleural plaques indicate asbestos exposure, associated with mesothelioma but do not indicate malignancy. Pleural effusion may be benign or malignant. All patients with a chest X-ray suspicious of MPM should be referred via the two-week wait pathway for suspected cancer referrals to secondary care. Referral should also be considered where there are persistent symptoms and a history of asbestos exposure, despite a normal chest X-ray. Thoracoscopy with pleural biopsy is the gold standard investigation for MPM.

Patients should be managed by a mesothelioma multidisciplinary team with early palliative care input to prioritise symptom control. Pleural effusions usually recur after drainage, so definitive management is required either with talc pleurodesis or an indwelling pleural catheter (IPC). IPCs are also recommended for management of a trapped lung. Patients with a WHO performance status of 0-1 should be offered chemotherapy with cisplatin and pemetrexed. Forty per cent of patients with MPM are alive 12 months after diagnosis. Three-year survival is currently 10%, an increase from 7% in 2016.