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Introduction: In April 2016 NICE approved funding, via NHS England, for ALK immunohistochemistry (IHC) as a predictive biomarker of oncogenic translocations arising in lung carcinoma. A positive result will enable targeted therapy. As Greater Manchester encompasses a population of 3.5 million, and the number of required molecular tests is increasing, the redistribution of ALK testing from the Christie Hospital to local departments has become a priority in order to retain the tumour block for additional tests required. In 2017 approximately 800 samples will be tested in the region.

Methods: ALK IHC of lung cancer samples has been conducted at the Christie Hospital, Manchester since 2012. In addition the Manchester Royal Infirmary established testing. Over the past 12 months University Hospital South Manchester (UHSM), Salford Royal Hospital and Royal Oldham Hospital have been verifying the Roche D5F3 clone for use on non-small cell lung cancer samples.

Results: Benefits of ALK-testing within a department include a reduction in turnaround times, pre-cutting of sections with preservation of the block, and maintenance of block within the base hospital enabling easy access for additional tests requested. Difficulties encountered included a lack of funding provided for local assay verification, delays in acquiring budget approval, and the provision of positive control material (such as resections of ALK-positive tumours, although this can be circumvented by use of cell line material and positive staining of appendix ganglion cells). In addition, pathologists must be trained in interpretation and potential artefacts. ALK FISH requests have increased due to overinterpretation of background staining that is not true-positive.

Conclusion: Regional auditing of IHC results and comparison with FISH results will be necessary to maintain predictive accuracy and quality assurance. Participating laboratories should enrol in the ALK EQA and adhere to recommended protocols, including a minimum of 6 hours fixation in formalin.

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58 Under-recognition of asbestos-related lung cancer: inadequate recording of asbestos exposure and occupational history as a contributory factor

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Introduction: Epidemiological studies estimate that there are currently over 2,000 asbestos-related lung cancer deaths per year in the UK. However, only 300 new cases of asbestos-related lung cancer are identified per year through the Industrial Injuries Disablement Benefit Scheme (IIDB). Such under-recognition of asbestos-related lung cancer means that many patients and relatives are not appropriately advised to seek financial compensation, both through the IIDB scheme and civil compensation claims. The purpose of this study was to measure the proportion of patients with a new diagnosis of lung cancer who had a clearly documented history of occupation and asbestos exposure.

Methods: 50 consecutive patients with biopsy-proven newly-diagnosed lung cancer (excluding mesothelioma) were identified in two hospitals in the North East of England. Documentation of occupation and asbestos exposure was recorded from clinic letters from both oncologists and respiratory physicians.

Results: 50 patients included (62% male, mean age of 62.8 years). Tissues subtype divided into adenocarcinoma (64%), squamous carcinoma (14), non-small cell lung cancer NOS (4), adenosquamous carcinoma (4%) and small cell (14%). 40% of patients had no documented occupational history. Only 2% had more than one documented occupation (previous survey data suggests on average a UK male will have 6 jobs in their working life). 78% of patients had no documented asbestos exposure history. No patients had a quantified asbestos exposure. In comparison, 90% of patients had a documented smoking history and in those that smoked, 100% had quantification of their smoking.

Conclusion: We identified that 40% patients with a new diagnosis of lung cancer had no documented occupational history. 78% patients had no documented asbestos exposure history. Without adequate occupational histories and consideration of asbestos exposure, we will continue to fail to identify asbestos-related lung cancer, potentially denying eligible patients from applying for IIDB support or pursuing civil claims.

Disclosure: All authors have declared no conflicts of interest.

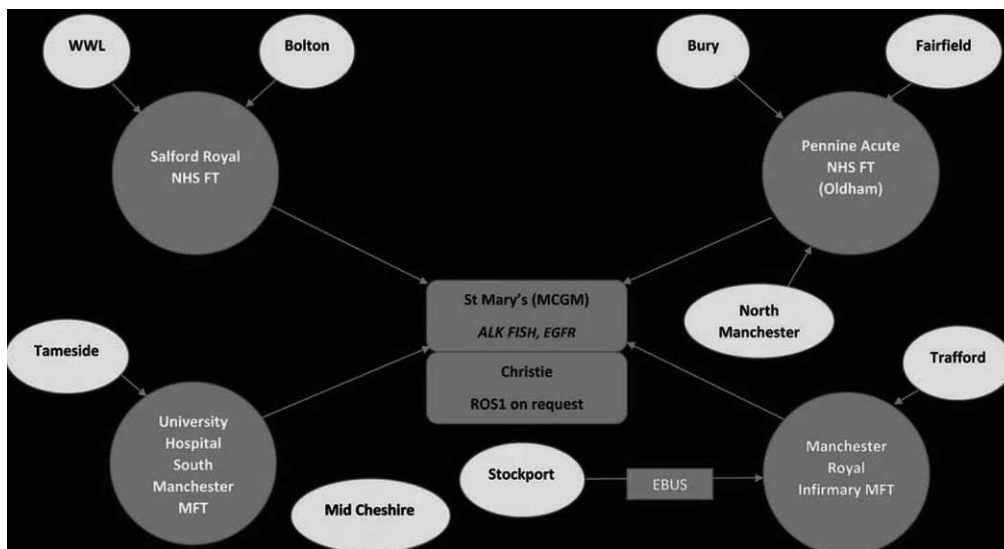


Fig. 1 (abstract 57).