

Quality assurance of radiology reporting in lung cancer screening: The role of a radiology review meeting

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INTRODUCTION

NHS guidelines for targeted lung health check programmes highlight the importance of quality assurance of radiology reporting. Furthermore, screening programmes do not exist in isolation and prior imaging may alter the significance of any findings. The SUMMIT study utilises a regular meeting for clinicians and radiologists to facilitate rapid review of indeterminate cases. We describe the impact and outcomes of this process.

METHODS

The SUMMIT study aims to assess the implementation of low-dose CT screening for lung cancer in a high-risk population and to validate a multi-cancer early detection blood test (NCT03934866).

Scans are analysed by computer-aided detection software with an algorithm-derived management plan generated from nodule parameters. Scans are then reported by thoracic radiologist, who can agree with or diverge from the proposed plan.

A weekly review meeting is attended by study clinicians and senior thoracic radiologist. Cases discussed include those where background history has been obtained, clarification of findings is required, or where there has been unexpected deviation from study nodule management protocol. Study and external imaging (where required) are reviewed.

RESULTS

In this analysis, 206 cases were discussed in 30 meetings (mean 6.9 cases/meeting). 89 (43%) involved review of external imaging. Participant management plans were changed in 113 cases (54.9%), of which 9 (4.4%) were upgraded to more urgent management and 104 (50.5%) downgraded. 126 (61.2%) cases reviewed were for pulmonary nodules; the remainder were for other pulmonary or extra-pulmonary findings. 44 (21.4%) potential multi-disciplinary team referrals were avoided, and 8 (3.9%) new referrals were generated.

DISCUSSION

A screening review meeting allows efficient review of scans and results in clinical management modification in 55% of cases. Rather than relying solely on retrospective quality assurance processes, we propose lung health check programmes should also include regular meetings where issues potentially changing management plans can be reviewed contemporaneously.