

Title: Correspondence relating to O'Dowd et al: published online in Thorax, 13 October 2014:

“What characteristics of primary care and patients are associated with early death in patients with lung cancer in the UK?”

Contributors: TKR drafted the letter after receiving suggestions from AT and WH, who provided data from 2 of his group's studies. RN then made further comments. All authors approved the article before submission.

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Dear Sirs

We appreciate the paper by O'Dowd(1) as an interesting contribution to the literature concerning the primary care diagnosis of lung cancer. By concentrating on those patients dying soon after diagnosis, this paper is addressing the issue of access to care of lung cancer patients who are already gravely ill. The disappointingly low chest X-ray (CXR) referral rates (we calculate obtained in only 40.2% and 50.4% of the patients attending with medium/high frequency and dying before and after 90 days, respectively) may represent irregular recording of CXR requests in THIN. Electronic research databases store their data in several fields, and CXR requests do not always appear in the main clinical field, sometimes being relegated to 'hidden text'. In a study of paper and electronic records, Stapley et al found a primary care CXR was obtained in 164/247 (66%) of lung cancer cases;(2) a second study examined 3,184 cases in the CPRD from 2007-9 inclusive and found a CXR in 1,947 (61%), though we believed there was too much missing CXR data to submit the latter paper for publication. Thus the CXR referral rates in the present study do appear unusually low, especially given that data from practices reporting very low referral rates were excluded.

The more important consideration is whether having a "liberal" primary care CXR policy might facilitate the diagnosis of early stage and potentially curable lung cancer. We agree with the authors that the association between higher CXR rates at practice level and increased lung cancer mortality likely reflects better identification of lung cancer as a cause of death as a result of having a CXR. We would be interested to know whether the incidence of lung cancer was higher in practices that ordered CXRs more frequently and whether practice level CXR rates might yet correlate with higher rates of long-term survival in lung cancer.

The study suggests reliance on primary care to identify advanced, let alone early, cases of symptomatic lung cancer is a failing strategy in isolation, despite the high frequency with which these patients interact with primary care. Besides use of a risk calculator, as suggested by the authors, other interventions include empowering patients to request a CXR, as we attempted in the original El Cid study,(3) lowering the threshold suggested by NICE for ordering a CXR in primary care,(4) or pro-actively screening COPD patients for NICE lung cancer criteria.(5)

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