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Diagnosing lung cancer earlier in the UK

We read with interest the article by Hubbard *et al* who raise late diagnosis as a key determinant of poor lung cancer survival in the UK.¹ We would like to highlight discrepancies in rates of radical treatment use as another contributory factor. Figures from the Eurocare 4 study² suggest 5-year survival figures in Northern Ireland have been higher than in England and Wales or Scotland (table 1).^{2–4} This could reflect differences in patient demographics, disease, method of recording or treatment modality. There are no published data that directly compare the health or the stage at presentation of patients with lung cancer in relation to geographical location in the UK. If significant regional differences exist, one might expect to find evidence for differential survival from other cancers as well. Current data do not suggest a survival advantage for cancer patients in general from Northern Ireland over the rest of the UK.

Data on cancer survival in Northern Ireland are collected by the Northern Ireland Cancer Registry (NICR), a population-based registry collecting data from pathological records, hospital discharges and death registrations. Over the last decade the introduction of LUCADA in England and Wales, and CaPPS in Northern Ireland have made it possible to look for regional differences in cancer treatment. In Northern Ireland the number of patients included in CaPPS exceeds that recorded in recent years by the cancer registry. This would suggest most patients have been captured. One-year survival is likely to be influenced by palliative treatments, but 5-year survival is largely influenced by radical treatments, of which surgery is the mainstay. The use of radical radiotherapy may also have some influence, but comparative data are not available. We looked at the surgical resection rate and 5-year relative survival rate for lung cancer in

Northern Ireland and compared them with those published for England, Wales and Scotland.^{2–4}

Reported rates of surgical resection in all areas of Northern Ireland in 2004–08 exceeded the average for England and Wales for 2008. We believe this may offer a plausible reason for better 5-year survival differences and may be worthy of further study. Regional differences in lung cancer treatment are not new and are as yet unexplained.⁵ Addressing the remediable differences in appropriate use of radical treatment in the UK may offer a more immediate potential improvement in lung cancer survival than early diagnosis.

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Authors' response

In our editorial we argue that, as a group, people with lung cancer in the UK present later and have a worse prognosis than people with lung cancer elsewhere in Europe.¹ We believe that delays in the early diagnostic process are central to this problem. At the

moment, however, we do not understand enough about the early patient journey from the development of symptoms to initial investigations in primary care to try to intervene to improve the situation. We need to do this if we are to maximise the benefits of currently available treatments such as surgery. We believe that this is an area in urgent need of further research.

Weir *et al* make the point that that there is variation in the outcome for people with lung cancer within the UK and that the reasons for this are poorly understood.² In addition to delays in diagnosis, Weir *et al* argue that access to potentially curative surgical treatment may vary geographically and that this, though currently only a treatment option for a small minority of people, may also contribute to variations in survival. We agree.

It is clear that, in addition to understanding the cultural and health service factors which appear to lead to delays in lung cancer diagnosis in the UK, we also need to be sure that, once we have diagnosed lung cancer, people within the UK receive the highest quality of care. To do this we need to determine the extent to which variations in access to care exist, as well as what individual factors—such as comorbidity, performance status and stage—influence treatment decisions for people with lung cancer. The presence of the National Lung Cancer Audit, which now provides more than 5 years of data for people with lung cancer in the UK, is an important and unique tool to do this research. We hope that the analyses using the national audit which are currently being done by us and by other groups will help to shed some light on these questions.

Lung cancer remains an enormous public healthcare problem for the UK and we desperately need new effective treatments for people with lung cancer. We also need to study the diagnostic processes and the delivery of care for people with lung cancer to ensure that, at each stage, we maximise the benefits from the currently available treatments.

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Table 1 A comparison of regional surgical resection rate and 5 year survival

	Total number of lung cancers	Surgical resection rate	1995–99 mean age adjusted 5 year relative survival (SD)*
UK England	27815	10.8	8.6 (0.2)
UK Wales 2008			9.0 (0.9)
UK Scotland 2008	4058	10.6	8.0 (0.5)
UK Northern Ireland 2004–08	4786	12.8	10.2 (1.2)

*Difference in 5 year relative survival for cancers diagnosed between 1995–99 and 1990–94.