

Inequalities in outcomes for non-small cell lung cancer: the role of the MDT

Rich *et al*¹ report that non-small cell lung cancer patients first seen in a hospital which has on-site thoracic surgical services are more likely to have surgical treatment of their tumour. However, it is not clear what aspects of 'being a surgical centre' are crucial to increasing resection rates. Numerous reports have documented a volume–outcome relationship for complex surgical and medical care and one hypothesis to explain this relationship is higher case load since surgical units tend to be located in large hospitals serving large populations.

To assess this, we analysed all 129 052 cases submitted to the NLCA (England

Table 1 Survival data by MDT quintile

Quintile	Median survival (days)	1 Year (%)	2 Years (%)	3 Years (%)	4 Years (%)	5 Years (%)
1 (Smallest MDTs)	226	37.2	22.6	17.2	14.5	12.9
2	216	36.3	21.4	16.2	13.7	12.2
3	211	35.8	21.2	16.1	13.6	11.8
4	204	34.9	20.4	15.3	12.6	10.9
5 (Largest MDTs)	209	35.3	20.8	15.6	13	11.6

MDTs, multidisciplinary teams.

only) between 2006 and 2010 inclusive, based on the 'place first seen' as a surrogate marker of the decision-making multidisciplinary team (MDT). After excluding cases with 'negative survival', no recorded place first seen and trusts with <100 cases over the 5-year time span, we divided the MDTs into quintiles based on the number of cases managed by each MDT (quintile 1 the smallest through to quintile 5 the largest). We used logistic regression to calculate the odds ratio (OR) for receipt of surgery, and also calculated survival by the Kaplan-Meier method.

In a multivariate model (adjusted for age, sex, performance status and stage, but not comorbidity), the ORs and CIs for surgical treatment across the quintiles were 1.0, 1.11 (0.99 to 1.25), 1.03 (0.93 to 1.15), 0.94 (0.85 to 1.04) and 0.91 (0.82 to 1.0). Survival analyses are shown in table 1.

These results do not support the hypothesis that MDTs managing more patients deliver better outcomes. It is likely that the best outcomes are delivered by functional MDTs having efficient pathways delivering best practice diagnostic and treatment regimens. Further work is necessary to understand the variables which influence variation in treatment and outcomes for lung cancer patients in England.

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