

Effect of a new provider on Radiotherapy Uptake Rate

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BACKGROUND

The NRAG report (2007) estimated that over 50% of cancer patients would benefit from radiotherapy. Malthus modelling using actual treatment data, applicable to current casemix and treatment pathways in the UK, has shown the uptake rate to be 38%.

There remains a need to assess current actual uptake of radiotherapy by resident population, in order to assess any variation.

The introduction of a new site should be analysed to see if uptake of radiotherapy increases in the areas around the new site after the site has become operational.

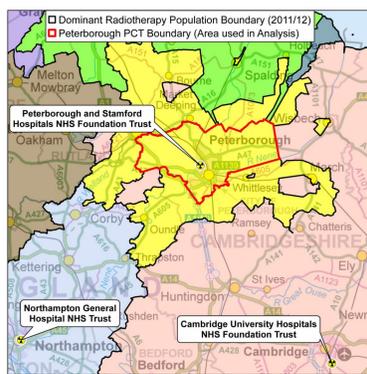
METHOD

Cancer Registration data is the principal data source to identify cancer patients. Using a defined linkage technique, the addition of the National Radiotherapy Dataset (RTDS) to the ONS Cancer Registration data allows the percentage number of patients who receive radiotherapy to be calculated.

Due to the number of multiple registrations in the ONS Cancer Registration data, patients are only included once per tumour site (and per laterality, if applicable). ICD10 diagnosis 'C' codes (excluding C44) and 'D05' were used in the analysis.

Patients are classified as receiving radiotherapy within one year if they have a radiotherapy episode up to 30 days prior to the diagnosis date, or up to one year after.

Peterborough and Stamford Hospitals NHS Trust commenced radiotherapy in May 2011. Peterborough PCT is an area surrounding the Trust that has been used as a geographical residence boundary to assess the difference in one year radiotherapy uptake before and after the site opened for Radiotherapy treatment.



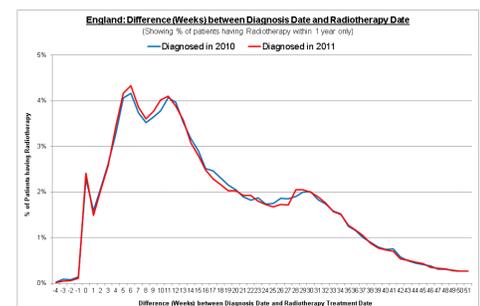
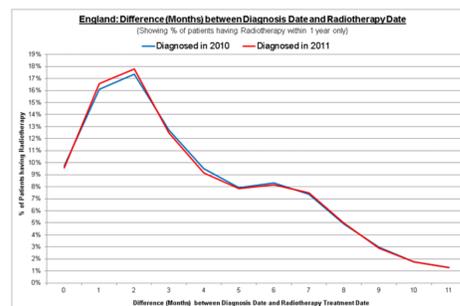
CONCLUSION

The analysis demonstrates that there is an increase in one year radiotherapy uptake around the area (PCT) of a new radiotherapy provider. Interestingly the uptake peaked prior to the opening of the centre, due to radiotherapy being given more than a month or more after diagnosis. However a possible anticipatory effect increasing uptake cannot be ruled out. Further analysis is needed to investigate any other potential causes of this (e.g. casemix).

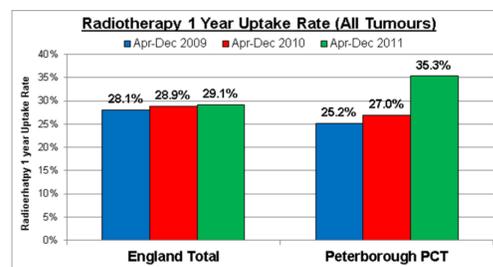
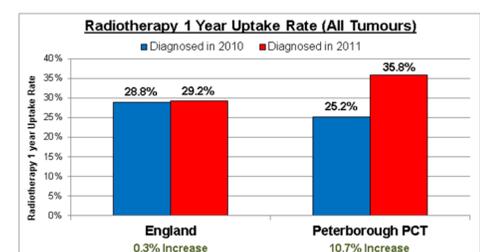
Radiotherapy is effective throughout the cancer patient pathway. Additional work is required, when subsequent years of cancer registry data is available, to calculate the actual radiotherapy utilisation for patients including treatment beyond one year after cancer diagnosis.

RESULTS

The graph underneath shows those patients who received radiotherapy within one year of diagnosis and the time difference (months/weeks) between the diagnosis date and the start date of radiotherapy treatment (England residents).



The graph (right) shows the radiotherapy uptake rate for England and Peterborough PCT. Whilst the England uptake rate has only increased 0.3% between 2010 and 2011, Peterborough PCT's uptake rate has increased by 10.7%.

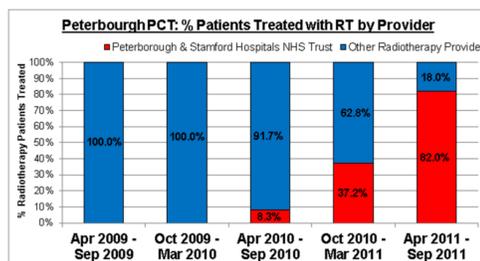
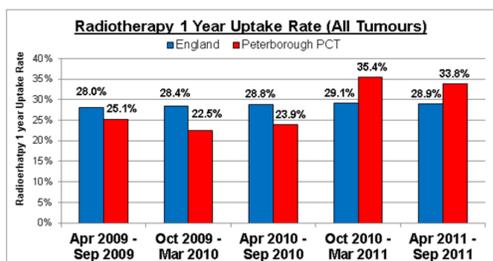


Similarly the nine month period of each year (to allow a yearly comparison) gives an increase in uptake (8.3%) for Peterborough PCT for patients diagnosed between April and December 2011.

To understand the effect on patients diagnosed prior to May 2011, the uptake analysis was also produced at six monthly intervals.

Peterborough PCT's uptake rate was greatest for patients diagnosed between October 2010 and March 2011 at 35.4%, of which 37% (of all patients treated) received radiotherapy at Peterborough & Stamford NHS FT although it was not operational at this time.

In the following 6 month period, April to September 2011 the uptake rate remained high at 33.8%, with a significant percentage of 82% patients having attended Peterborough & Stamford NHS FT.



Acknowledgements

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Cancer Registration Data Source: Office of National Statistics



NATCANSAT

National Clinical Analysis and Specialised Applications Team

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