

A service evaluation of radiotherapy patients in terms of travel time, diagnosis & treatment intent, at one centre in England

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Introduction

The National Radiotherapy Advisory Group (NRAG) recommended a one-way journey for treatment should not exceed 45 minutes.¹ Travel time can reduce treatment uptake.² This evaluation compares travel times across the catchment area of the Rosemere Cancer Centre, Preston. At the Study Centre, radiotherapy is delivered on one site at an acute hospital, and patients attend from a wide geographical catchment area which covers both rural and suburban areas.

The work has also looked at patient attendance in terms of diagnosis and treatment intent, to allow comparison with current proposals for modernising radiotherapy networks by NHS England.³ These proposals support the delivery of care close to a patient's home where clinically appropriate.³

Objectives

1. To examine the proportion of patients travelling more than 45 minutes to the Study Centre to compare against NRAG standards.
2. To explore the distances travelled by patients to the Study Centre.
3. To examine the number of patients attending the Study Centre in terms of diagnosis and treatment intent, to compare against NHS England proposals.

Methods

Data was extracted from the patient information management system for all patients who attended the Study Centre for treatment preparation from 1st April 2016 to 31st March 2017 (2016/2017). Only entries with postcodes from inside the Study Centre's catchment area were included; the area was divided into 4 main areas based on the first two letters of the postcode (BB, FY, LA and PR).

Travel times and distances for each postcode entry to the Study Centre were calculated using Google Maps.⁴ The journey with the shortest distance was always chosen where more than one option was given. Journeys were estimated for off-peak travel and with private transport.

References

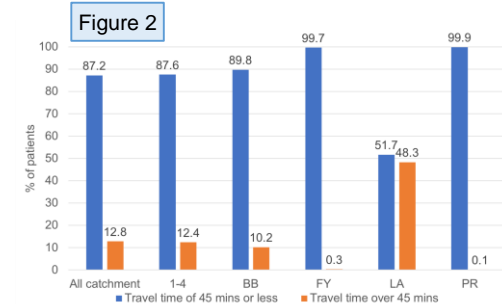
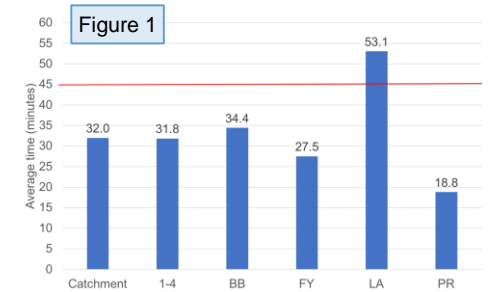
1. National Radiotherapy Advisory Group (2007) *Radiotherapy: Developing a World Class Service For England* [Online]. Available from: http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_074575 (Last accessed: 9 February 2017).
2. Jones, A.P., Haynes, R., Sauerzapf, V., Crawford, S.M., Zhao, H. and Formanc, D. (2008) "Travel time to hospital and treatment for breast, colon, rectum, lung, ovary and prostate cancer", *European Journal of Cancer*, vol. 44. No. 7, pp. 992-999.
3. NHS England (2016) *Modernising Radiotherapy Services in England - developing proposals for future service models* [Online]. Available from: https://www.engage.england.nhs.uk/survey/264ceb37/supporting_documents/rtdiscussionguide.pdf (Last accessed: 5 December 2016).
4. Google Maps (2017) *Map Data - Directions* [Online]. Available from: <https://www.google.co.uk/maps/> (Last accessed: 30 July 2017).

Results

In 2016/2017, there were 4012 attendances for treatment preparation eligible for analysis. Figure 1 shows the one-way travel time average for each area compared to the 45-minute recommendation. Figure 2 shows the percentage of patients travelling 45 minutes or less, and more than 45 minutes.

The average distance travelled to the Study Centre was 20.1 miles ($s = 14.8$ miles). Patients in the 'LA' postcode area had the highest average travel distance of 41.3 miles ($s = 17.6$); but made up the smallest proportion of patients by area (19%).

The Study Centre met the required patient throughput for all common and all but one of the less common cancers, as described by NHS England proposals.³ The number of patients being treated for rare cancer types were lower than the recommended throughput.³



Conclusions

The majority of patients (87.2%) attending the Study Centre are served well in terms of the NRAG 45-minute recommendation.¹ However, journeys were estimated for off-peak travel using private transport. Most patient groups currently treated at the Study Centre would be unaffected in terms of travel time, if the plans to modernise radiotherapy services were implemented.³ Overall, this study highlights where there is scope for improving and developing clinical services in the future in terms of patient experience. Future work would look for any time trends by analysing earlier years in the development of the Study Centre.