Radiotherapy UK Vital cancer treatment formerly ACTION RADIOTHERAPY DEDICATED TO IMPROVING CANCER TREATMENT

# Radiotherapy Travel Time Analysis

1. **Travel times accepted to influence uptake of Radiotherapy**
   (i) Jones et al 2008 EJC
   (ii) DOH 2012 document (DOH 2012) section 3.26
   National Radiotherapy awareness group (NRAG) and advisory group to the Government in 2007 recommended the 45 min travel limit.

> 3.26 The uptake of radiotherapy treatment by patients is known to diminish with distance travelled by patients to reach a radiotherapy centre[6]. The NRAG report concluded that, ideally, patients would have no more than 45 minutes travel time to their treatment although, for some highly specialised services, patients may need to travel further.

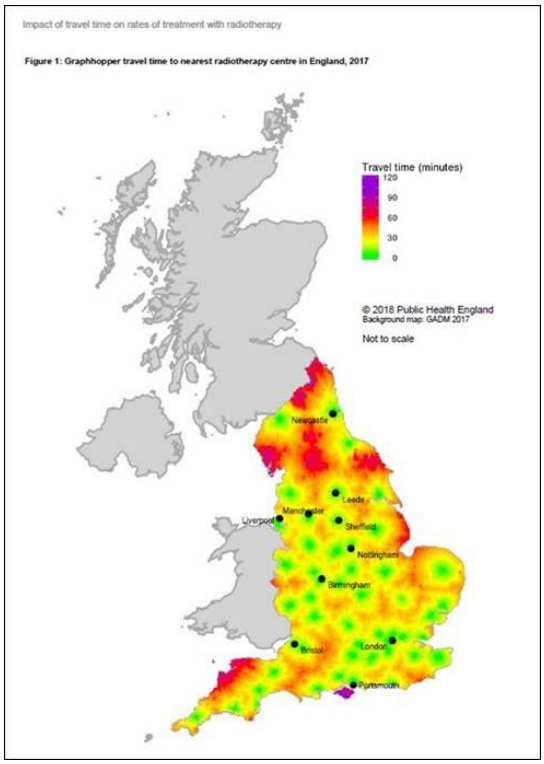
   (iii) There are a number of areas who want satellite centres to better serve the populations. When satellite centres do open the uptake is usually up to 20% more than expected suggesting patients are not getting the Radiotherapy they need. This was the subject of a British Institute of Radiology Meeting in September 2018 (publication pending.

2. **Level of concern**
   (i) Travel times are seen as the most important Radiotherapy patient concern from recent the NHSE public consultation (SMART consult analysis NHSE)
   (ii) CRUK public survey (CRUK response to NHSE page 3), noted 43% of patients would **not** travel as far as possible to get the best Radiotherapy.
   (iii) DOH 2012 2.6, Domain 4: Ensuring that people have a positive experience of care. Additionally, access to radiotherapy within 45-minute travel and reduced waiting lists support improved experience.

> • **Domain 4: Ensuring that people have a positive experience of care**
> Radiotherapy is a personally tailored treatment plan, delivered by modern equipment supported by a robust information pathway. Combined with reduced side effect profile, experience of care is positive; four out of five patients reported positively to the Cancer Patient Experience Survey on management of their radiotherapy side effects. Additionally, access to radiotherapy within 45-minute travel and reduced waiting lists support improved experience.

3. **Where are areas with furthest travel times**

Areas where Radiotherapy patient travel time is over 45mins is provided in the PHE/CRUK document attached (fourth attachment) and see excerpt below. The figures provided are not with a cut off of 45 minutes but seem to be in the region of around 5-10% of the population. This is further compounded by the restriction of SBRT to certain centres.




**Geographical distribution of RT centres in SBRT survey 2018**

**Non responding centres are identified in grey**


Grey-non-responders
Green-non-SABR centres
Orange-SABR centres

4. **Does Access influence survival**

RT needed in 40% of cancers which are cured. RT is curative when used alone in 16-18% of cancers eg prostate, lung, head and neck and cervix. Is needed as part of cure as adjuvant therapy in breast, lung, rectal cancer. Evidence that access (and therefore travel) to RT does affect survival is available.

(i) Anecdotal evidence of patients declining treatment due to travel times

(ii) SBRT lung increases survival by 30% and SABR for oligometastatic disease improves survival (all cancer types) by 12 months. CRUK support survey 2019 showed restrictions. The recent UK survey supported by Cancer Research UK (*Beasley et al 2019*) concluded that some patients may be receiving inferior treatment.

(iii) Analysis by the Marie Curie Foundation based on *Atun et al 2015* estimated that if, by 2035, every cancer patient who needs radiotherapy had access to it, almost one million lives would be saved every year.

(iv) Based on WHO GLOBOCAN project and epidemiological data and independent on other public health parameters Medenwald et al 2018 showed an inverse linear relationship between number of radiotherapy machines (RTM) per population and survival (mortality to incidence ratio) in the population, particularly in prostate and lung cancer. In prostate cancer doubling RTM reduces mortality by 14.1%.