

### London South Bank University

### The utilisation of a Virtual Environment for Radiotherapy Training (VERT) in patient information giving sessions prior to the delivery of external beam radiotherapy for prostate cancer patients

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OBJECTIVES	METHODS
<ul> <li>To determine the level of knowledge of those patients who attended VERT for a pre-treatment talk</li> </ul>	A survey method <sup>1</sup> was used with a total population sample. Prostate cancer patients referred for radical radiotherapy from April - September 2015 (n=38) Ethical approval was obtained through LSBU ethics committee (UREC number 1472).

• To explore patients perceptions who utilised VERT as an information giving resource prior to radiotherapy treatment

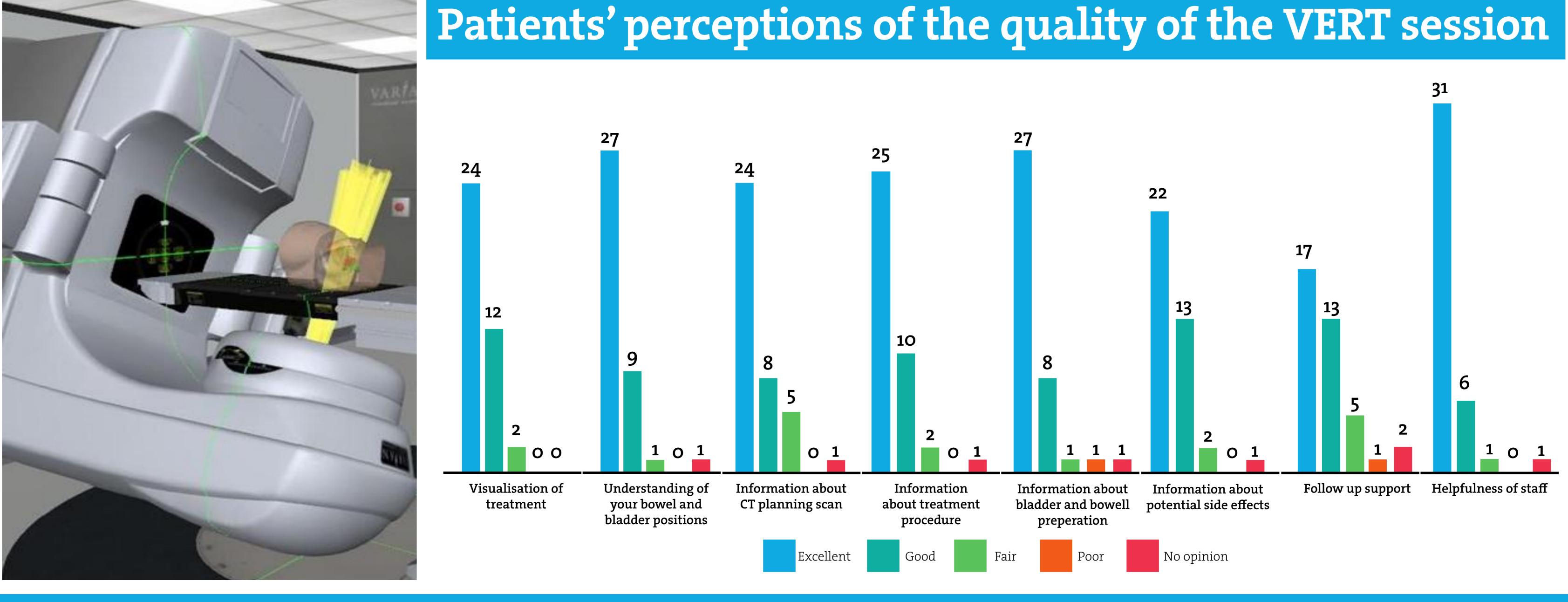
• To identify the benefits and limitations of using VERT as pretreatment information giving resource

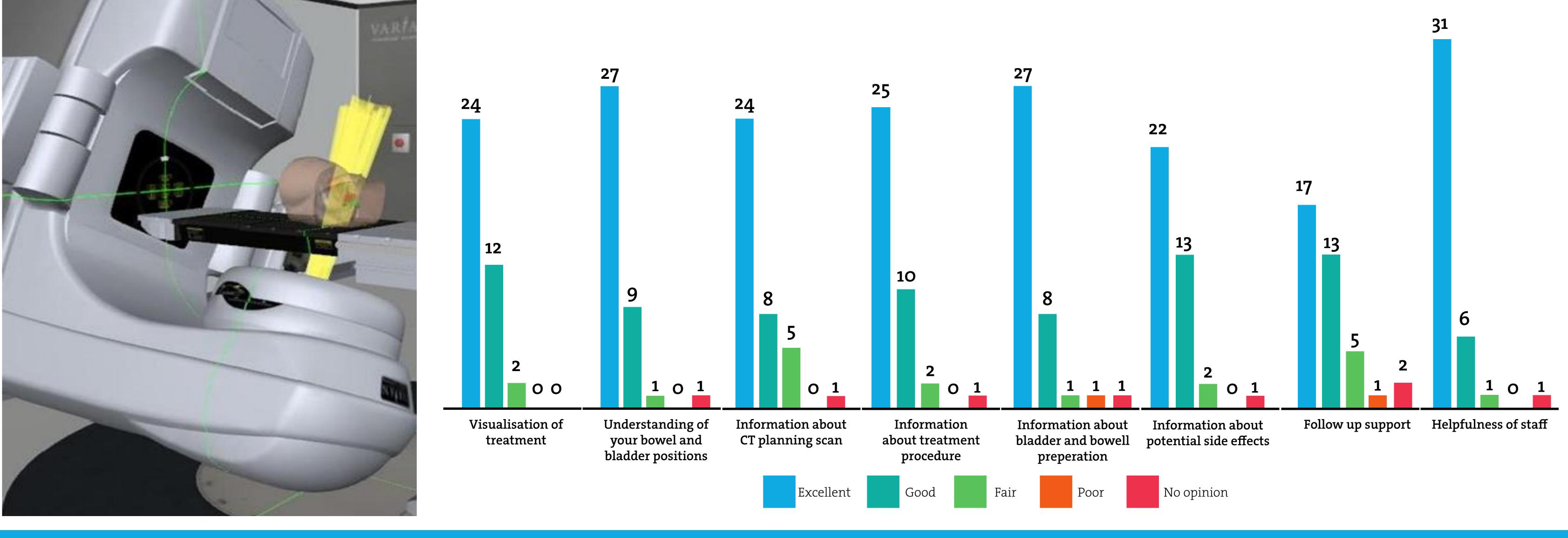
### Phase 1 – The VERT patient information session

Patients attended a session four weeks prior to their planning CT scan during which the internal organ shape, location and relationship to treatment volume were demonstrated.

### **Phase II - The questionnaire**

Completed in week two of radiotherapy. Reliability co-efficient of 0.88





## RESULTS

The sample of respondents ranged from 49 to 79 years with a mean age of 68.3 (sd=7.6). Results showed high levels of satisfaction and overall helpfulness of VERT as information giving tool n=37 (98%).

All but one respondent n=37 (97.4%) indicated that VERT helped them to understand the importance of following bowel and bladder treatment preparation instructions.

All respondents n=38 (100%) agreed that the session gave them a better understanding of their radiotherapy treatment and what to expect during the process. Additionally n=37 (97.4%) of respondents felt the session enhanced their knowledge about radiotherapy side effects.

A small number of respondents n=4 (10.5%) were not comfortable being part of a group during the VERT session and would have preferred a one to one session, however all respondents n=38 (100%) were comfortable asking questions within a group setting, and agreed that the session reduced their

# CONCLUSIONS

The use of VERT for radiotherapy student training has been well established<sup>2,3,4</sup> however the use of VERT as patient information giving tool is considered a relatively novel approach to treatment preparation. Limited published<sup>5</sup> information exists on the use of VERT as a patient resource which strengthens the importance of these findings. Results demonstrated a very positive response to the use of VERT for prostate cancer patients, in particular to help gain an understanding of the importance of bowel and bladder preparation prior to treatment to ensure reproducibility of organ position for daily treatment. Additional key findings have demonstrated excellent levels of communication associated with the use of VERT emphasising the need for future patient preparation strategies to consider the use of virtual technology.

## REFERENCES

1. Kelley K, Clark B, Brown V, Sitzia J. Good practice in the conduct and reporting of survey research. International Journal of Quality in Health Care 2003: 15(3): 261–266.

2. Appleyard R, Coleman L. Virtual environment for radiotherapy training (VERT) Final project report. Department of Health for England, Cancer Action Team. Society and College of Radiographers 2010: 1-58. 3. Bridge P, Appleyard R, Ward J et al. The development and evaluation of a virtual radiotherapy treatment machine using an immersive visualisation environment. Computers & Education 2007: 49(2): 481-494. 4. Nisbet H, Matthews S. The educational theory underpinning a clinical workbook for VERT. Radiography 2011: 17(1): 72-75.

5. Sule-Suso J, Finney S, J Bisson et al. Pilot study on virtual imaging for patient information on radiotherapy planning and delivery. Radiography 2015: 21: 273-277.