

D4: Can We Afford PET-CT for Oesophageal Cancer Management?

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ABSTRACT

Introduction: Cancer outcomes depend on earlier diagnosis for earlier treatment intervention thus improving cancer outcomes. Multiple studies have shown important progress and evidence to promote earlier diagnosis together with early screening, increased public awareness, improved clinicians' education and better access to diagnostic modalities. There are limited studies on financial implications for earlier diagnosis. This study aims to show the cost impact of PET-CT in the management of oesophageal cancer. **Methods:** Retrospective analysis of patient data from 2001-2008 were used to develop decision tree using TREEAGE software. The model estimated the mean cost associated with each diagnostic procedure used for diagnosis. The results of the cost-effectiveness analysis are presented in terms of the incremental cost-effectiveness ratios (ICERs). **Results:** The ICER for the strategy of PET compared with conventional work-up was estimated at £29,300 per QALY; the ICER for PET/CT compared with PET was £ 31,000 per QALY; and the ICER for PET/CT combined with conventional work-up versus PET/CT was £ 42,100. Each additional diagnostic test will increase the expenses of the package together with increased effectiveness in terms of QALYs gained. The probabilistic sensitivity analysis shows that at a willingness-to-pay threshold of £ 20,000 per QALY. **Conclusion:** Economic burden of disease management, with choice of treatments as the main cost made it essential to perform a thorough imaging evaluation to find the best treatment paradigm for each patient. This study focuses on PET-CT costing impact on oesophageal cancer management using population based approach to choose an affordable patient's decision making process.

KEY WORDS:

Cost effectiveness analysis, PET-CT, oesophageal cancer, cancer cost, affordable cancer management