

MedTech **CONSULTING**

Case Study

Cambridge Oncometrix - Health Economic Evaluation



ONX is a non-invasive molecular test developed by UK based Cambridge Oncometrix. The test will enable risk-stratification and improve true positive rates within the diagnostic pathway for those with suspected prostate cancer. ONX will be conducted prior to multi-parametric magnetic resonance imaging (mpMRI) scanning, a relatively new prostate cancer screening method. As a result, ONX will alleviate the burden placed on access to mpMRI scans.

The Brief

Health Enterprise East was commissioned to deliver a cost-effectiveness analysis of ONX from an NHS perspective. Outcomes were modelled in terms of cost and Quality-Adjusted Life Years (QALYs) – a weighting of length of life gained with quality of life.

Our Approach

To develop the health economic model, ONX was compared to the current prostate-specific antigen (PSA) diagnostic care pathway as recommended by NICE through a series of three scenarios:

Scenario 1: ONX after PSA, followed by mpMRI

Scenario 2: ONX in parallel with PSA

Scenario 3: ONX instead of PSA

From this, health and cost outcomes were simulated for a patient cohort over the course of their lifetime. A combination of NIHR funded clinical trials, NICE publications, outcomes from a literature review, and client-disclosed data was used as the quantitative foundation for this analysis.

Lastly, HEE quantified uncertainties surrounding these results by performing a probabilistic sensitivity analysis. A graphical representation of this was delivered by way of a cost-effectiveness acceptability curve.

The Outcome

The cost-effectiveness analysis identified which scenario was most cost-effective and thus would present the optimal positioning of the test in the diagnostic pathway. A fully interactive model was supplied - complete with modifiable data parameters for Cambridge Oncometrix to amend as further studies and empirical data is gathered. Furthermore, a top-to-bottom report of the health economic evaluation was provided.

“We are delighted with the result! This model can be used as new results come in and will be very valuable for our company’s future!” – Dmitry Soloviev, Principal Scientist & Co-founder Cambridge Oncometrix