No EQ-5D? Analysis of Alternative Utility Value Sources Used in NICE Appraisals for Oncology Indications

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Objectives

- To systematically evaluate the health state utility value used in manufacturer economic evaluations submitted to NICE for oncology indications, with regards to:
  - The availability of EQ-5D data from the intervention clinical trial(s);
  - The views of the Evidence Review Groups and NICE committees on alternative approaches to sourcing health state utility values
- To make recommendations on approaches manufacturers may take when EQ-5D data are not available from their intervention clinical trial(s) when submitting to NICE.

Background

- The NICE reference case states that the health state utility values (HSUVs) used in economic evaluations submitted by manufacturers should be based on health-related quality of life (HRQoL) data reported directly from patients and validated with public preferences, preferably using the EuroQol-5 Dimensions (EQ-5D) questionnaire.1
- In some cases, manufacturers may not have collected EQ-5D data in the clinical trial(s) for their intervention, and may therefore need to obtain HSUVs from an alternative source to inform their economic model.
- Economic models in oncology typically have well-defined and similar health state structures; this disease area therefore formed the focus of our research.

Methods

- Oncology technology appraisals (TA) published between January 2015 and April 2017 on the NICE website were reviewed, and details of the drug, indication, availability of EQ-5D or HRQoL data from the intervention clinical trial(s), source of base case HSUVs, Evidence Review Group (ERG) and NICE committee comments on the HSUVs, and final recommendation were systematically extracted.2
- Multiple technology appraisals, Cancer Drugs Fund rapid reconsiderations, or appraisals where the manufacturer economic model had a notably more complex structure that deviated from a typical 3- or 4-health state design, were excluded.

Results

- Of the 30 manufacturer submissions reviewed, 17 had collected EQ-5D data in the intervention clinical trial(s) and in all cases these data informed at least one HSUV in the manufacturer’s economic model.
- Of the 13 manufacturer submissions that had not collected EQ-5D data in the intervention clinical trial(s), 9 had collected alternative HSUV data in the intervention clinical trial(s) and 4 had not. Consequently, several different approaches were used by manufacturers to source HSUVs to inform their economic model (Figure 2).
- Three case studies of different approaches used by manufacturers to source HSUVs are provided in Table 1.
- A supplementary handout accompanying this poster highlights the full details of all approaches taken by manufacturers to source alternative HSUVs when EQ-5D data were not collected in their intervention clinical trial(s). Consideration of these approaches, and the views of the ERGs and NICE Committees across all of these appraisals informed the recommendations and conclusions of the research. Please contact R.C. Beale (rbeale@costellomedical.com) for a digital copy of this handout.
- Based on these ERG and NICE Committee criticisms, recommendations to manufacturers with regards to sourcing HSUVs are presented in Table 2.

Discussion

- Despite the longstanding preference by NICE for HSUVs to be derived from EQ-5D data, only 57% of the manufacturer submissions reviewed had collected EQ-5D data within the intervention clinical trial(s).
- In appraisals where EQ-5D data had not been collected in the intervention clinical trial(s), varying levels of criticism were attracted by the manufacturers with regards to sourcing HSUVs are presented in Table 1.
- Nevertheless, the growing trend to seek health economist input in trial design and to use EQ-5D data where possible could reduce the number of appraisals attracting criticism on HSUV sources, in addition to the work required by the manufacturer to source appropriate alternative HSUVs in the future.
- As expected, where HSUVs were derived from alternative sources, this research highlighted the need to assess face validity and conduct appropriate sensitivity/simulational analyses.

Conclusions

- Despite representing NICE’s preferred source of HSUVs for economic evaluations, only just over half of the manufacturer submissions in oncology indications over the last two years had EQ-5D data collected from the intervention clinical trial(s).
- Whilst HSUV sources deviating from the NICE reference case attracted criticism from ERGs, there are measures that manufacturers may take to mitigate such feedback, and NICE committees appear willing to accept a range of alternative approaches to sourcing HSUVs.

References


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