

The Cancer Research Economic Support Team (CREST) aims to provide specialist advice and support related to the inclusion of health economic methods, including economic evaluations, in cancer clinical trials and other research. Ultimately, the aim of such advice is to build capacity within the clinical trial groups – such as the ALTG – and its membership, to allow them to undertake health economic studies more independently.

A core component of the advice often provided by CREST, along with the Cancer Australia Chair in Quality of Life, relates to the means by which quality of life assessments can be valued for use in a subsequent economic evaluation. Multi-attribute utility instruments (MAUI) are a particular type of quality of life instrument that also include a scoring algorithm that is preference based (that is, developed using methods that aim to assess the trade-off between the different dimensions of quality of life, and between quality of life and survival). When a MAUI is used to measure patient related quality of life in a trial or other clinical study, the responses can be readily used to derive quality adjusted life years (QALY) for use in economic evaluations. The scores (often called utility weights, or utilities) associated with each health state in a MAUI are on a scale where 0 is equivalent to death, and 1 is equivalent to full health (the scoring algorithms may have negative values as well). QALYs can be estimated by multiplying the time in the health state by the utility weight. For more information about measuring and valuing quality of life for economic evaluation, refer to the CREST Fact Sheet.

http://www.chere.uts.edu.au/crest/pdfs/factsheet_hrqol.pdf.

There are a range of different MAUIs that have been developed, but one of the most commonly used was the EQ-5D developed by the EuroQoL group. The EQ-5D is a standard MAUI often used within clinical trials to assess patients' quality of life (QoL). It is a relatively simple instrument, with only five questions covering the dimensions of mobility, self-care, usual activities, pain/discomfort and anxiety/depression.

In the past, converting EQ-5D QoL assessments into utility scores for Australia relied on algorithms that utilise preferences from the populations of the UK or the US. Research by investigators at CHERE who are part of the CREST team has been undertaken to develop new algorithms for the EQ-5D that are based on the preferences of the Australian population. This research provides Australian specific utility weights for the conversion of within-trial EQ-5D responses to QALYs. The research has used two different preference based methods for development of the scoring algorithms; there are results for the standard three level EQ-5D based on the conventional time trade-off approach (the method used in the original UK EQ-5D valuation study) and based on the use of a discrete choice experiment. In addition, the team has also undertaken a further study to develop utility weights for the new version of the EQ-5D, which has five rather than three levels for each of the dimensions. The utility weights for the EQ-5D-5L were developed using the discrete choice experiment approach.¹

Using utility values derived from the preferences of Australian populations is particularly relevant where an analysis is to be conducted from the perspective of the Australian health care setting, or to assess the impact on Australian patients of introducing a change in care.

The algorithms for converting the EQ-5D responses to utility values specific to the Australian population can be located via the CREST website. Watch out for future updates on the CREST website for a similar algorithm for calculating Australian specific utility values for the SF-6D (derived from the SF-36).

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For more information about CREST please visit our website at: <http://www.chere.uts.edu.au/CREST>

¹Viney R, Norman R, King MT, Cronin P, Street DJ, Knox S, Ratcliffe J. (2011) Time Trade-Off Derived EQ-5D Weights for Australia. *Value in Health* **14(6)**: 928-936

Viney R, Norman R, Brazier J, Cronin P, King M, Ratcliffe J, Street D. (In Press) An Australian discrete choice experiment to value EQ-5D health states. *Health Economics*

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