HTA144

Does NICE value male lives more than female lives?

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Objectives

Underlying all National Institute for Health and Care Excellence (NICE) decisions is one fundamental social value judgement; to demonstrate this NICE introduced severity modifiers. Following the NICE methods review, NICE recommends using direct EQ-5D-3L to inform the quality of life (QoL) by age and sex (Hernandez et al., 2022), as opposed to previous methods used by Ara and Brazier (2011). Changes in the general population QoL highlights the importance for pharmaceutical companies to understand how NICE values the lives of males and females, when assessing technologies and how it impacts the products willingness to pay (WTP) threshold.

Methods

Quality-adjusted life expectancy (QALE) is the basis for calculating, quality-adjusted life years (QALY) shortfall. Estimating QALE for general population requires four items (i.e., area A): *1. Mean age and sex; 2. National life tables; 3. Quality of life by age and sex; 4. Discount rate.* Implementing the latest NICE guidance, MAP Patient Access (MAP) has updated their baseline healthy population model using Hernandez EQ-5D-3L scores as its reference case for the general population QoL. Disease-specific inputs were used from TA276; the discounted comparator arm QALYs (8.49) and the age at diagnosis (21 years) were constant.

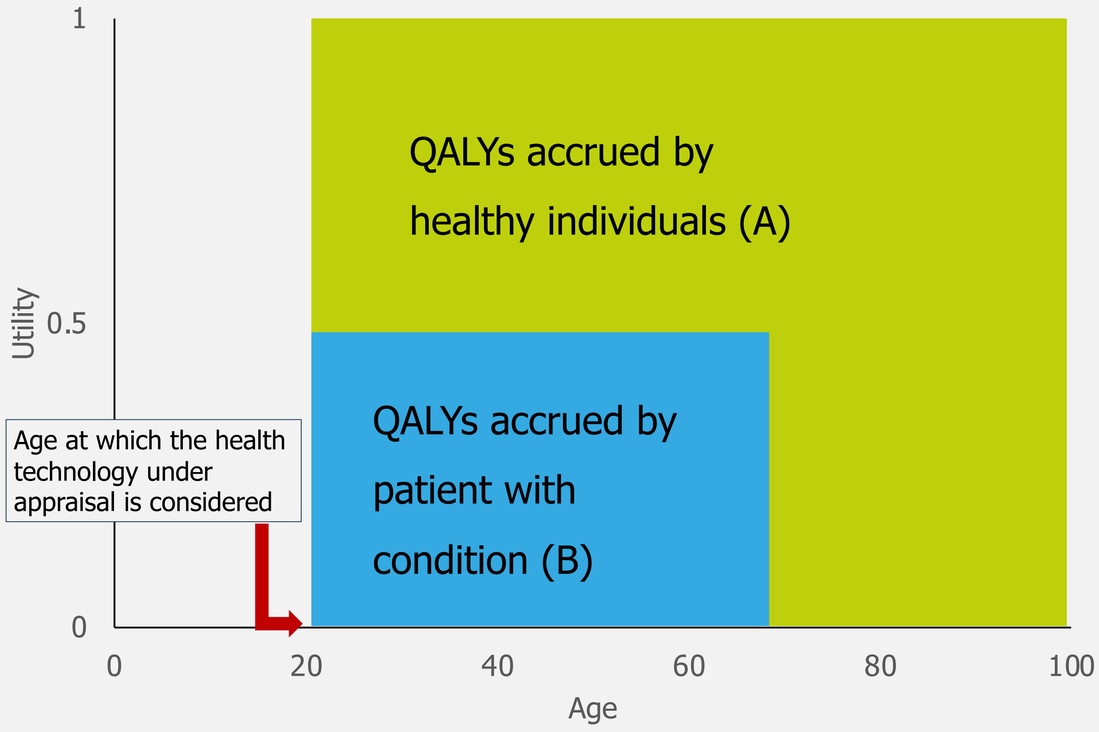
Results

Different scenarios were explored by varying the proportion of males to females at baseline. Results were compared to NICE's previous modelling methodologies using Ara and Brazier (2011). The absolute proportional QALY shortfall (AS) was higher when there was a larger proportion of males at baseline. However, when using Ara and Brazier (2011) as the reference case, AS was higher for females.

Conclusion

When adopting recent NICE methods guidance, results suggest that NICE values males lives more than females, where they have previously valued females lives over males. Although there is an inconsistency with how NICE values the lives of males and females, a medium severity was calculated for all scenarios, suggesting that the differences will not drastically impact the WTPs thresholds in technology appraisals.

Figure 1: Calculating absolute QALY shortfall



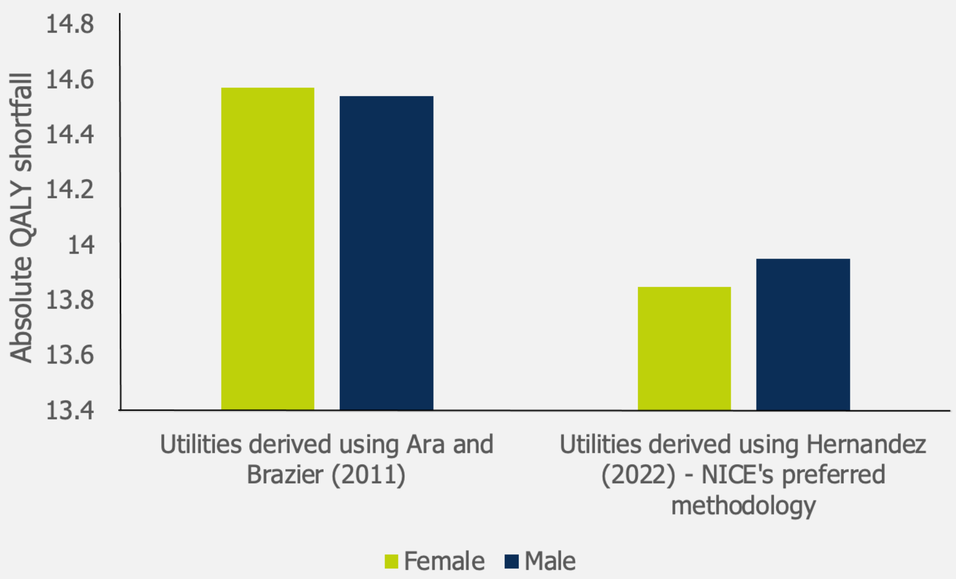
Abbreviations: QALY, quality-adjusted life year.

Table 1 : NICE severity modifiers

	Severity modifiers		
	No additional weight	Medium severity weight	Highest severity weight
Absolute QALY shortfall	x < 12	12 ≤ x < 18	18 ≤ x
Proportional QALY shortfall	x < 0.85	0.85 ≤ x < 0.95	0.95 ≤ x
QALY weight	x1.0	x1.2	x1.7
WTP (£/QALY)	£20-30k	~£35k	~£50k

Abbreviations: NICE, National Institute of Health and Care Excellence; QALY, quality-adjusted life year; WTP, Willingness To Pay.

Figure 2: Summary of results



Abbreviations: QALY, quality-adjusted life year; NICE, National Institute of Health and Care Excellence.

References:

1. Ara R, Brazier JE. Using health state utility values from the general population to approximate baselines in decision analytic models when condition specific data are not available. Value in Health. 2011 Jun 1;14(4):539-45
2. Hernandez Alava, M., Pudney, S., and Wailoo, A. (2022) Estimating EQ-5D by age and sex for the UK. NICE Decision Support Unit Report. 2022.
3. National Institute for Health and Care Excellence. *Colistimethate sodium and tobramycin dry powders for inhalation for treating pseudomonas lung infection in cystic fibrosis* [TA276]. Committee papers. 2013.