It is all about (the health) economics.
Is it really?

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Table HE44: Base case cost–utility model results – elective repair, infrarenal AAA

Strategy	Total (discounted)		Incremental		ICER (£/QALY)
	Costs	QALYs	Costs	QALYs	
OSR	£13,438	6.640			
EVAR	£19,770	6.480	£6,331	-0.160	Dominated
Key: EVAR, endovascular aneurysm repair; ICER, incremental cost-effectiveness ratio; OSR, open surgical aneurysm repair; QALY, quality-adjusted life year.					

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What drives NICE decisions

Clinical effectiveness – always

Cost effectiveness – sometimes

NICE methods

NICE Processes

Guide to the processes of technology appraisal

Process and methods
Published: 2 September 2014
nice.org.uk/process/pmg19

Developing NICE guidelines: the manual

Process and methods
Published: 31 October 2014
nice.org.uk/process/pmg20

NICE Methods Guidance

As the ICER of an intervention increases in the £20,000 to £30,000 range, an advisory body's judgement about its acceptability as an effective use of NHS resources should make explicit reference to the relevant factors considered above. Above a most plausible ICER of £30,000 per QALY gained, advisory bodies will need to make an increasingly stronger case for supporting the intervention as an effective use of NHS resources with respect to the factors considered above.'

6.3.4   As the ICER of an intervention increases in the range of £20,000 to £30,000 per QALY gained, the Committee's judgement about the acceptability of the technology as an effective use of NHS resources will make explicit reference to the relevant factors listed in section 6.3.3.

6.3.5   Above a most plausible ICER of £30,000 per QALY gained, the Committee will need to identify an increasingly stronger case for supporting the technology as an effective use of NHS resources, with regard to the factors listed in section 6.3.3.

NICE definition of 'ICER'

Incremental cost-effectiveness ratio (ICER)

The difference in the change in mean costs in the population of interest divided by the difference in the change in mean outcomes in the population of interest.

NICE Glossary, 2019

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NICE Glossary, 2019

= "value for money" (opportunity cost)

WTP Threshold

Methods for the estimation of the National Institute for Health and Care Excellence cost-effectiveness threshold

Karl Claxton, Steve Martin, Marta Soares, Nigel Rice, Eldon Spackman, Sebastian Hinde, Nancy Devlin, Peter C Smith and Mark Sculpher

NHS
National Institute for Health Research

WTP Threshold

Methods for the estimation of the National
Institute for Health and Care Excellence

Central or 'best' estimate of the threshold

The most relevant threshold is estimated using the latest available data (2008 expenditure, 2008–10 mortality). The central or 'best' threshold is estimated to be £12,936 per QALY.

Incremental Cost Effectiveness Ratio (ICER)

	Treatment A	Treatment B
Cost – Health and social care perspective	Cost A (£)	Cost B (£)
Outcome – Discounted quality adjusted life years	Outcome A (QALY)	Outcome B (QALY)

$$ICER\ (B\ relative\ to\ A)\ = \frac{Cost\ B - Cost\ A}{Outcome\ B - Outcome\ A}$$

Incremental Cost Effectiveness Ratio (ICER)

"...costs should relate to resources that are under the control of the NHS and personal and social services"

Included	Excluded
Drugs Hospital treatment Devices Personal and social services	Costs borne by patients Loss of earnings and productivity Benefit payments and taxation revenue Costs to carers/relatives Costs to other services Costs unrelated to the condition under consideration

Incremental Cost **Effectiveness** Ratio (ICER)

"For the cost-effectiveness analyses health effects should be expressed in QALYs. …The EQ-5D is the preferred measure of health-related quality of life in adults."

Included	Excluded
HRQoL as measured by EQ-5D • Mobility • Self care • Usual activities • Pain / discomfort • Anxiety /depression	Other aspects of physical and mental health Health and non-health effects on carers and relatives Dignity Compassion Processes of care Equity

Incremental Cost Effectiveness Ratio (ICER)

Incremental cost effectiveness ratio

What is the appropriate comparator?

- Complex EVAR vs. complex open repair

- Complex EVAR vs. conservative treatment

- Complex EVAR vs. infra-renal open repair

- Complex EVAR vs. infra-renal EVAR

Other considerations

- Whether there are strong reasons to indicate that the assessment of the change in health-related quality of life has been inadequately captured, and may therefore misrepresent the health utility gained.
- The innovative nature of the technology, specifically if the innovation adds demonstrable and distinctive benefits of a substantial nature which may not have been adequately captured in the reference case QALY measure.
- The technology meets the criteria for special consideration as a 'life-extending treatment at the end of life' (see section 6.2.10)
- Aspects that relate to non-health objectives of the NHS (see sections 6.2.20 and 6.2.21).

"the Committee will take non-health objectives of the NHS into account by considering the extent to which society may be prepared to forego health gain in order to achieve other benefits that are not health related."

NICE methods guidance, 2013

Incremental Cost Effectiveness Ratio (ICER)

NICE threshold: £20,000 to £30,000 per QALY

Regenerative medicines;   £300,000 / 10 QALY = £30,000 per QALY

Screening test;   £30 / 0.001 QALY = £30,000 per QALY

Raising the threshold from £20,000 to £30,000 per QALY to account for some other consideration may mean a willingness to pay £10 per patient or £100,000 per patient

Conclusion

It's not all about the health economics

It's about values

- What do we value about our healthcare?

- How do we measure it?