

comparison of HER2 tests indicated that overall CISH performance exceeds that of SISH. However, low agreement between SISH and FISH in equivocal cases affects these comparative estimates. The pooled estimates from this meta-analysis can help inform future HER2 test selection decisions.

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## PP08 Health Technology Assessment Of Autologous Chondrocyte Implantation

### AUTHORS:

Hema Mistry ([Hema.Mistry@warwick.ac.uk](mailto:Hema.Mistry@warwick.ac.uk)),  
Martin Connock, Pamela Royle, Norman Waugh

### INTRODUCTION:

Microfracture (MF) has been the main intervention in symptomatic articular cartilage knee defects. Autologous chondrocyte implantation (ACI) has looked promising, but was not recommended by the UK National Institute for Health and Care Excellence (NICE) in 2015 due to the short-term follow-up data from trials.

### METHODS:

Most long-term data comes from observational studies. We provided new unpublished analyses to NICE based on survival data of these studies, with appropriate caveats. They included: a large ACI study by Nawaz with useful subgroup data by osteoarthritis Kellgren-Lawrence stage and previous repair attempts; a very large MF study by Layton, and a small RCT by Knutsen indicating MF was as 'good' as ACI. A Markov model explored the cost-effectiveness of ACI vs. MF. Different scenarios were explored: ACI or MF as a first procedure, followed by ACI or MF in those needing a second repair. A NHS England perspective was adopted. Health outcomes were expressed as quality-adjusted life-years (QALYs).

### RESULTS:

The revised base-case analysis, used a list price of £16,000 (EUR 17,380 in 2013 prices) for cells, used ACI failure data from Nawaz with no previous procedures for ACI, and pooled MF failure data from two studies-Saris and Knutsen. ACI was more expensive but provided more QALYs. The incremental cost-effectiveness ratio comparing ACI then MF with MF then ACI was £8,000 (EUR 8,690) per QALY. Various sensitivity analyses were conducted assuming a threshold of £20,000 (EUR

21,730) per QALY: previous repair attempts reduced success of ACI (£22,000 (EUR 23,900) per QALY); reducing cell costs, ACI improved its cost-effectiveness; and limiting intervention to patients with higher Kellgren-Lawrence score did not appear cost-effectiveness.

### CONCLUSIONS:

The final NICE guidance published in October 2017 approved the use of ACI for patients who had no previous knee repairs, for people with minimal osteoarthritic damage to the knee, and for people with articular defects of over 2cm<sup>2</sup>.

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## PP11 Would A Highly Specialized Technology Be Approved In England Under The New NICE Guidance?

### AUTHORS:

Erika Turkstra ([erika.turkstra@PAREXEL.com](mailto:erika.turkstra@PAREXEL.com)),  
Silvy Mardiguan, Sangeeta Budhia

### INTRODUCTION:

In April 2017, the National Institute for Health and Care Excellence (NICE) updated its guidance for highly specialized technology (HST) appraisals, whereby it would automatically fund technologies for very rare diseases that fall below a threshold of an incremental cost-effectiveness ratio (ICER) of GBP 100,000 (USD 133,000) per quality-adjusted life year (QALY). In addition, NICE proposed to introduce a 'QALY modifier', weighting QALYs gained by the size of gain, which will advantage treatments that offer greater QALY gains.

### METHODS:

We reviewed all technologies reviewed through the NICE HST process until November 2017 and assessed whether additional QALYs may be awarded, and subsequently result in ICERs below the new NICE threshold.

### RESULTS:

Six products (eculizumab, elosulfase alfa, ataluren, migalstat, eliglustat, and asfotase alfa) have been through HST process. Within the appraisal documents, most analyses were cost consequence analyses with no ICERs reported. The estimated cost per patient per year