

**Table S3. Identified NICE Technology Appraisal decision factors**

<p><b>Condition</b></p> <ul style="list-style-type: none"> <li>• Condition management</li> <li>• Effect on QoL             <ul style="list-style-type: none"> <li>○ Patient</li> <li>○ Carer</li> <li>○ Family</li> </ul> </li> <li>• Psychological aspects</li> </ul> <p><b>Current practice</b></p> <ul style="list-style-type: none"> <li>• Currently available treatments</li> <li>• Current treatment pathway</li> <li>• Variation in current practice</li> <li>• Clinical management</li> <li>• Treatment impact</li> <li>• Treatment in current practice</li> <li>• Level of success of current treatment</li> <li>• Stigma of expert treatment (i.e. drugs/psychological)</li> <li>• Treatment service</li> <li>• Treatment duration</li> <li>• Uptake</li> </ul> <p><b>Clinical need</b></p> <ul style="list-style-type: none"> <li>• Clinical need for treatment</li> <li>• Clinical need for additional treatment</li> <li>• Clinical need for better practice             <ul style="list-style-type: none"> <li>○ Improved monitoring</li> <li>○ Improved dosing</li> </ul> </li> <li>• Clinical need of particular sub group</li> </ul> <p><b>New treatment (/ technology)</b></p> <ul style="list-style-type: none"> <li>• Treatment safety</li> <li>• Adverse events</li> <li>• Treatment duration</li> <li>• Long term treatment effects</li> <li>• Treatment effectiveness</li> <li>• New patient access scheme</li> <li>• Comparator treatment             <ul style="list-style-type: none"> <li>○ Comparator validity</li> </ul> </li> <li>• Clinical treatment pathway</li> <li>• Addition to treatment pathway</li> <li>• Prescription setting</li> <li>• Adherence issues</li> <li>• Adjuvant treatment</li> </ul> <p><b>Studies</b></p> <ul style="list-style-type: none"> <li>• Study relevance</li> <li>• Study method</li> <li>• Study quality</li> <li>• Statistical significance</li> <li>• Population group</li> <li>• Population generalisability</li> <li>• Generalisability to current practice</li> </ul>	<p><b>Clinical effectiveness</b></p> <ul style="list-style-type: none"> <li>• Treatment effectiveness</li> <li>• Relative effectiveness / comparisons</li> <li>• Sub group effectiveness</li> <li>• Sub group comparison</li> <li>• Application in current practice</li> <li>• Relevance to clinical practice</li> <li>• Evidence / New evidence             <ul style="list-style-type: none"> <li>○ Evidence reliability</li> <li>○ Evidence availability</li> <li>○ Evidence suitability</li> <li>○ Evidence validity</li> <li>○ Population generalisability</li> <li>○ Effect on QoL</li> <li>○ HRQoL</li> <li>○ HRQoL measurement/instrument</li> <li>○ Analysis method</li> </ul> </li> <li>• Additional analysis             <ul style="list-style-type: none"> <li>○ Post hoc efficacy analysis</li> <li>○ Post hoc subgroup analysis</li> <li>○ Manufacturer's post hoc analysis</li> <li>○ ERG's exploratory analyses</li> <li>○ Sensitivity analysis</li> <li>○ Scenario analysis</li> </ul> </li> <li>• Relevance comparison</li> <li>• Long term effects</li> <li>• Adverse effects</li> <li>• Risk of recurrence / relapse</li> <li>• Patient reported outcomes/ PROM</li> <li>• Health utility             <ul style="list-style-type: none"> <li>○ Estimation of utility</li> </ul> </li> </ul> <p><b>Cost effectiveness</b></p> <ul style="list-style-type: none"> <li>• Cost effectiveness analysis</li> <li>• Manufacturer's economic analyses</li> <li>• Validity</li> <li>• ICER             <ul style="list-style-type: none"> <li>○ Estimated ICER(s)</li> <li>○ Most appropriate/plausible ICER</li> </ul> </li> <li>• Additional analysis             <ul style="list-style-type: none"> <li>○ Manufacturer's sensitivity analysis</li> <li>○ Manufacturer's new cost effectiveness estimates</li> <li>○ ERG amendments                 <ul style="list-style-type: none"> <li>▪ Impact</li> <li>▪ Treatment length in practice</li> <li>▪ Treatment application in practice</li> </ul> </li> </ul> </li> <li>• Economic model             <ul style="list-style-type: none"> <li>○ Key drivers of cost/clinical effectiveness</li> <li>○ Model face validity</li> <li>○ Model limitations</li> <li>○ Model relevance</li> <li>○ Model suitability</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>○ Model structure</li> <li>○ Model time horizon</li> <li>○ Model input             <ul style="list-style-type: none"> <li>▪ HRQoL</li> <li>▪ Treatment in current practice</li> <li>▪ Treatment duration</li> <li>▪ Sub group effectiveness</li> <li>▪ Treatment effectiveness</li> <li>▪ Long term treatment effects</li> <li>▪ Health utility</li> <li>▪ Adverse events</li> <li>▪ Changes in model input</li> </ul> </li> <li>○ Model outcome             <ul style="list-style-type: none"> <li>▪ Sensitivity to model input</li> <li>▪ Long term outcome prediction</li> <li>▪ Effect on QoL</li> </ul> </li> <li>○ Model corrections</li> <li>• Comparison scenario             <ul style="list-style-type: none"> <li>○ Most appropriate comparison scenario</li> <li>○ Representation of current scenario</li> <li>○ Limitations</li> </ul> </li> <li>• Risk of recurrence / relapse</li> </ul> <p><b>Other factors</b></p> <ul style="list-style-type: none"> <li>• Innovation</li> <li>• Rare condition</li> <li>• Children</li> <li>• Lack of recent advances in field</li> <li>• Equality issues             <ul style="list-style-type: none"> <li>○ Protected characteristics</li> </ul> </li> <li>• Stigmatisation of condition</li> <li>• Impact on family</li> <li>• Uncaptured benefits             <ul style="list-style-type: none"> <li>○ Health benefits</li> <li>○ HRQoL                 <ul style="list-style-type: none"> <li>▪ Patient</li> <li>▪ Family</li> </ul> </li> <li>○ Benefits to particular population groups</li> </ul> </li> <li>• Displacement of other treatments</li> <li>• End of Life considerations</li> </ul>
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