

Technical appendix notes to accompany paper entitled ‘Responsiveness, Reliability, and Minimally Important and Minimal Detectable Changes of 3 Electronic Patient-Reported Outcome Measures for Low Back Pain: Validation Study’ by Froud *et al*

Note number	Note details
1	In the original definition, the Jaeschke <i>et al</i> use the word ‘difference’. However, we support the suggestion of de Vet <i>et al</i> of preserving the term ‘difference’ for discussing differences between groups or populations, and ‘change’ for discussing longitudinal within-group or within-person change. The Jaeschke definition relates to minimally important <i>individual change</i> .
2	ICC used accounting for systematic error ( <i>i.e.</i> absolute agreement; Shrout and Fleiss ICC type 2.1),[52] which de Vet <i>et al</i> show is appropriate when measuring changes in patient health domains using quasi-continuous outcome measures.[53]
3	The square root of the sum of the ICC variance components for within-person and error variance. [53]
4	MDC <sub>95</sub> was estimated as $1.96 \times \sqrt{2} \times SEM$ . The MDC <sub>95</sub> may be interpreted as the threshold equal to and below which the scores of participants drawn from a stable population may be considered to have a 95% probability of no real change having occurred. [53, 56, 57]
5	Baseline eVAS scores did not correlate with transition question scores at one-week (-0.04, $P=.66$ ) or at six-weeks (-0.12, $P=.48$ ), whereas follow-up scores correlated positively (0.32, $P=.001$ ) at one week (0.49, $P=.001$ ) at six-weeks. The addition of baseline score to follow-up score regressed on the transition question increased the variance explained from 11% to 16% ( $P=.01$ ) at one-week and 24% to 30% at six weeks ( $P=.07$ ). Baseline eNRS scores did not correlate with transition question scores at one-week (0.05, $P=.49$ ) or at six-weeks (-0.07, $P=.52$ ), whereas follow-up scores correlated positively (0.45, $P<.001$ ) at one-week (0.55, $P<.001$ ) at six-weeks. The addition of baseline score to follow-up score regressed on the transition question increased the variance explained from 20% to 25% ( $P<.001$ ) at one-week and 30% to 31% at six weeks ( $P=.04$ ). Baseline eRMDQ scores did not correlate with transition question scores at one week (0.04, $P=.70$ ) or at six weeks (-0.15, $P=.35$ ), whereas follow-up scores correlated positively (0.38, $P<.001$ ) at one week (0.34, $P=.03$ ) at six-weeks. The addition of baseline score to follow-up score regressed on the transition question increased the variance explained from 13% to 21% ( $P=.003$ ) at one-week but did not significantly increase the variance at six-weeks ( $P=.16$ ).