

Assessing lower limb spasticity – translating research findings into practice

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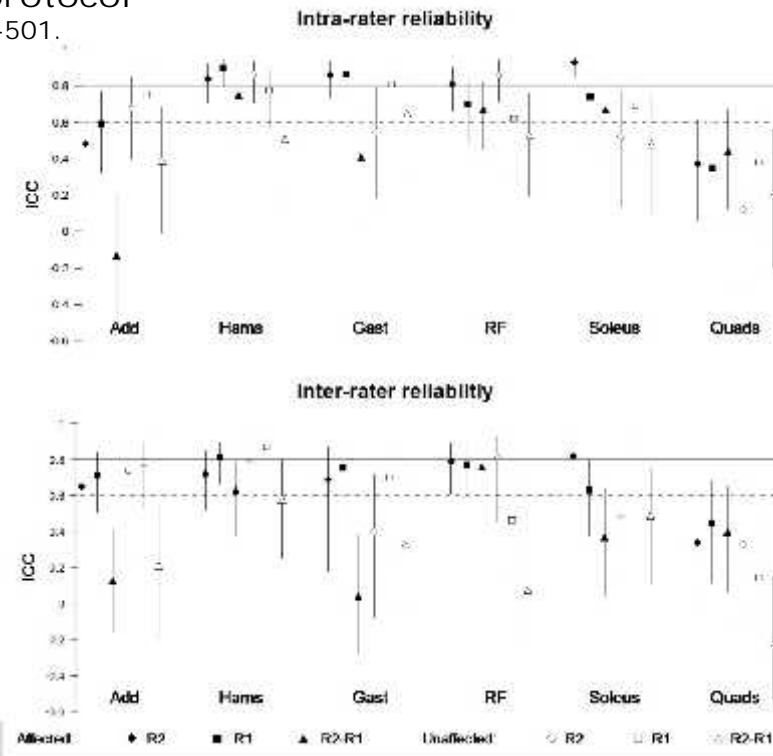
Part A – Standardised testing protocol

Arch Phys Med Rehabil. 2013 ;94(12):2494-501.

Intra and inter – rater reliability of the Modified Tardieu Scale (MTS) N=30 adults with LL spasticity. Two experienced physiotherapists performed slow (R2) and fast (R1) passive movements for lower limb muscles half an hour apart on the same day (interrater reliability). One physiotherapist repeated the assessment 1 to 3 days earlier or later (intrarater reliability).

			Intra rater		Inter rater	
			Kappa coefficient	% agreement	Kappa coefficient	% agreement
Tib Ant	Add	R2	0.68	0.86	0.53	0.80
		R1	0.65	0.86	0.45	0.60
		R2 R1	0.50	0.82	0.27	0.65
Tib Med	Add	R2	0.66	0.82*	0.50	0.66*
		R1	0.07	0.76*	0.37	0.92*
		R2 R1	0.20	0.84*	0.45	0.92
Tib Post	Add	R2	0.77	0.71	0.45	0.91
		R1	0.97	0.49	0.58	0.44
		R2 R1	0.52	0.90	0.29	0.99
Tib Med	Add	R2	0.48	0.92	0.50	0.66*
		R1	0.38	0.54	0.35	0.60
		R2 R1	0.30	0.58	0.30	0.60

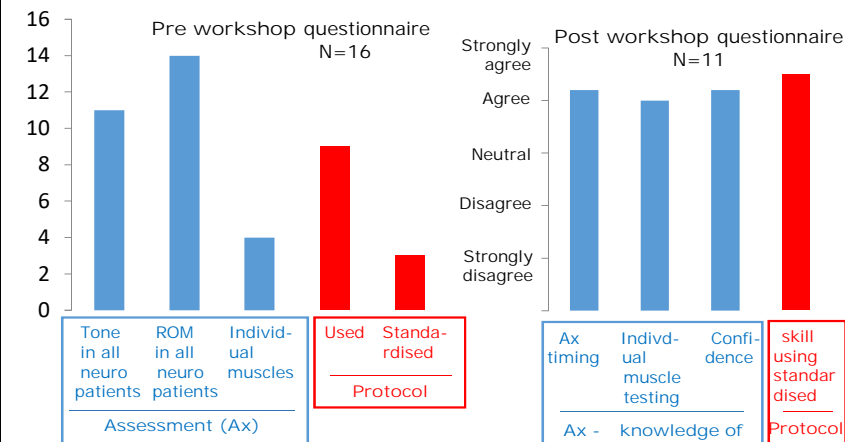
Weighted Kappa and percentage agreement calculations for quantitative spasticity measurements of the tibialis muscles



Intraclass correlation coefficient calculations with 95% confidence intervals for intra and inter-rater quantitative MTS measurements

Part B – Translating into practice

Pre and post participation questionnaire - given to 24 participants attending "How to assess hypertonicity in the lower limb? An interactive workshop" (2015).



Significance:

The MTS is reliable for assessing lower limb spasticity, best use the R1 by the same clinician.

Tone is under assessed by clinicians, and standardised protocols are infrequently used. Training improves the quality of tone assessment performed by clinicians.

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