

## Ambulation in patients managed with intrathecal baclofen for MS-related spasticity

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Spasticity is a frequent and disabling symptom in people with Multiple Sclerosis. Intrathecal baclofen (ITB) is effective but rarely used in ambulant people with MS.

A single centre prospective observational cohort study was performed between 2009 - 2018. Subjects admitted for ITB trial and pump implantation. Ambulatory patient data was collected at baseline, after intrathecal baclofen bolus via LP (4 – 8 hours monitored), at 3 months and annually after implant.

31 people were included, 20 female, 11 male, mean age 59 [26-69]. All EDSS 6.0 – 7.0. 29 taking oral anti-spasticity drugs and 9 on disease modifying drugs. Improvement in Ashworth (mean pre 1.34, post 0.72,  $p < 0.01$ ) and Penn scores (mean pre 3.14, post 1.08,  $p < 0.01$ ) at trial. Baseline 10MTw mean 69.9s [20-186] and trial 67.3s [24-211] ( $p = 0.8$ ). 21 people (68%) proceeded with implantation and ten (32%) did not. Lower limb MRC power was higher in those who proceeded with pump: mean 3.16 (1.7-5.0) vs 2.54 (1.4-3.7) ( $p = 0.017$ ). There was no difference in 10mTW from baseline measurement up to 1 year in those implanted as determined by one-way ANOVA ( $F(3,24) = 1.7, p = 0.19$ ). 14 patients had improved 10mTW and three had worse 10mTW after dose stabilisation. At latest review, 17 patients (80%) were ambulatory (mean follow up 3.14 years, [1 - 8]). Two people remained ambulatory with bilateral aid for 8 years (EDSS pre-pump 6.5 and 7). 3 people unable to mobilise at 1 year (2 were unable to complete baseline 10mTW). 16 people (76%) discontinued all other spasticity treatments post-pump.

ITB can preserve ambulation whilst effectively treating spasticity in a carefully selected cohort. Lower EDSS and higher MRC scores are predictors of maintained ambulation. A small number may experience prolonged improvement in mobility.

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### Disclosures

Y Sammaraiee, L Keenan, K Buchanan, V Stevenson have nothing to disclose.

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