

Appendix 1. Data extraction

The baseline scores from validated instruments were reported by patients within one month of being assessed at the Altum Pain Centre. The follow-up assessment time-point was based on scheduling of pain clinics but occurred within one to three months post-intervention. In addition to the details of each treatment group, perineural LA-S injections (dose of steroids and LA administered perineurally; number of injections) and CMM (medication use), data on demographics and injury-related variables at baseline was extracted from patients' medical records. Data on the following variables were collected at baseline and at one to three months after study treatments: intensity of pain as a NRS score, duration of pain, quality of pain assessed with the Douleur Neuropathique 4 questions (DN4) (applied retroactively using the available information from clinical assessment in the health records),⁷ Pain Catastrophizing Scale (PCS) score,⁴¹ Patient Health Questionnaire (PHQ-9) for depression score,³⁰ Lower Extremity Functional Scale (LEFS) score,⁶ and the daily opioid dose in oral morphine equivalents (OME) in milligrams. In addition to these variables, the following were also assessed at one to three months after interventions: daily opioid dose in OME, return to work (as a yes or no outcome), ability to resume physiotherapy (as a yes or no outcome), and adverse effects of CMM and perineural LA-S. Information on local (local infection, skin atrophy) and systemic (hyperglycemia, hypertension, osteoporosis, fractures, myopathy, systemic infections) adverse effects of perineural LA-S injections^{19,21} and CMM^{17,35} was extracted when documented in the patient's record.

Appendix 2. Details of multivariable regression analysis and power calculation.

2.1. Multivariable regression analysis

To avoid potential bias and loss of statistical power, use of multiple imputation techniques that involve use of simulated possible values was considered for variables that had 5-20% of data missing. An event-per-variable (EPV) ratio of at least 5 was used to determine the number of variables in the multivariable modelling in order to avoid “over-fitting” of the models.³⁷ The assumptions for multivariable linear and logistic regressions were also verified including checking for normal distribution of residuals and examining the dataset for any influential outlier values. The linearity of relationship between the independent variables and the outcome variable was also checked as was absence of heteroscedasticity of the residuals in relation to the predictor values. Multicollinearity between variables was identified using the variance inflation factor (VIF) for all models.

2.2. Feasibility and power calculation for anticipated available sample size

It was anticipated that data would be available for approximately 250 patients referred to neurologists and pain physicians for the time period from August 2009 to July 2013. Assuming that 60% received the interventions for chronic NP and 20% of the entries would have data missing on the primary outcome for this study, complete dataset for 120 patients was anticipated. Our data extraction team was able to extract data for 2 patients per day and we decided to allocate 60 days to data extraction. This allowed us to extract data for 120 patients. We excluded patients who had data missing for the primary outcome of interest – pain scores at the post-intervention follow-up at 1 to 3 months after the intervention. We stopped data collection once our desired sample size of 60 patients in each cohort (only CMM and CMM with perineural LA-S) was achieved. A two-sided t-test for comparing means of two samples with normal distributions was used to calculate the power of the analysis based

on the anticipated available sample size of 60 patients per group. Based on the clinical experience of the pain physicians who had experience in use of the study interventions (perineural LA-S, CMM), and existing literature,⁴ it was estimated that the difference in the NRS for pain (range is 0 to 10) at one to three months following CMM alone or CMM with perineural LA-S would be around **1.2 points** with a standard deviation of 2 points. Using these values, with a type I error of 5%, this study had a power of over **90%** (i.e., a type II error of less than **10%**) for detecting a statistically significant difference in NRS pain scores between the two groups.

Appendix 3. A univariable comparison of demographic, pain-related, injury-related, employment-related, psychological and physical function-related, and treatment-related variables between patients with presence (30% or greater reduction in pain NRS score at post-treatment follow-up as compared to baseline values) or absence of analgesic response. Data are means \pm SD, medians (25th-75th centile) or numbers (percentages).

Variable	Presence of analgesic response (n=28)	Absence of analgesic response (n=92)	p-values
DEMOGRAPHIC			
Age (years)	42.54 ± 10.68	42.84 ± 11.48	0.90
Sex			
<i>Males</i>	16 (57.14%)	60 (65.22%)	0.44
<i>Females</i>	12 (42.86%)	32 (34.78%)	
Diabetes			
<i>Present</i>	3 (10.70%)	9 (9.80%)	0.89
<i>Absent</i>	25 (89.30%)	83 (90.20%)	
Chronic pain syndrome			
<i>Present</i>	3 (10.70%)	10 (10.87%)	0.77
<i>Absent</i>	25 (89.30%)	82 (89.13%)	
Current smoker			
<i>Yes</i>	12 (42.86%)	38 (41.30%)	0.81
<i>No</i>	14 (50.00%)	50 (50.00%)	
PAIN-RELATED			
Duration of pain (months) [median (25 th -75 th centile)]	13.00 (7.00-20.500)	11.00 (8.00-17.00)	0.43
Baseline NRS pain score [median (25 th - 75 th centile)]	7.25 (6.00-8.00)	7.00 (6.00-8.00)	0.76
Patients with baseline DN4 score ≥ 4/10			0.26
<i>No</i>	8 (28.57%)	17 (18.48%)	
<i>Yes</i>	20 (71.43%)	75 (81.52%)	
Baseline oral opioid dose*	0.00 (0.00-10.00)	6.75 (0.00-27.00)	0.05

(morphine equivalents mg per day) [median (25 th -75 th centile)]			
INJURY-RELATED			
Mechanism of injury			
<i>Blunt soft-tissue trauma</i>	9 (32.14%)	33 (35.87%)	0.54
<i>Closed fracture of one or more bones</i>	10 (35.71%)	23 (25.00%)	
<i>Penetrating trauma/ORIF</i>	9 (32.14%)	36 (39.13%)	
Operative intervention			
<i>Before presentation</i>	9 (33.33%)	31 (33.70%)	0.53
<i>After presentation</i>	0 (0%)	2 (2.17%)	
<i>None</i>	18 (66.67%)	46 (50.00%)	
EMG and NCV studies			
<i>Normal</i>	8 (28.57%)	24 (26.09%)	0.91
<i>Abnormal</i>	4 (14.29%)	16 (17.39%)	
<i>Not done</i>	16 (57.14%)	52 (56.52%)	
EMPLOYMENT-RELATED			
Work Type			
<i>Manual</i>	24 (85.71%)	80 (86.96%)	0.25
<i>Office-based</i>	4 (14.29%)	8 (8.70%)	
Work status			
<i>Not working</i>	17 (60.71%)	60 (65.93%)	0.23
<i>Working</i>	10 (35.71%)	31 (34.07%)	
PSYCHOLOGICAL STATUS			
Baseline PCS score [median (25 th -75 th centile)]	24.50 (9.00-35.00)	33.00 (20.00-44.00)	0.02
Severity of catastrophizing (PCS grade)			
<i><16/52 (mild)</i>	8 (28.57%)	12 (13.04%)	0.09
<i>16 - 37/52 (moderate)</i>	11 (39.29%)	27 (29.35%)	
<i>≥ 38/52 (severe)</i>	4 (14.29%)	25 (27.17%)	
LOWER EXTREMITY PHYSICAL FUNCTION			
Baseline physical disability (LEFS score) [means ± SD]	26.00 ± 13.03	21.87 ± 11.87	0.41
LEFS grade			
<i><20: severe loss of function</i>	11 (47.83%)	31 (44.29%)	0.19
<i>20-39: moderate loss of function</i>	8 (34.78%)	35 (50.00%)	
<i>≥40: mild loss of function</i>	4 (17.39%)	4 (5.71%)	
TREATMENT-RELATED			

Type of treatment			
<i>CMM</i>	9 (32.14%)	51 (55.43%)	0.03
<i>CMM + Perineural LA and steroids</i>	19 (67.86%)	41 (44.57%)	
Interval in days between start of treatment and follow-up [median (25 th -75 th centile)]	71.00 (42.5-106.00)	57.00 (42.00-93.00)	0.33
Data available on 19 patients in the response group and 52 patients in the no response group			