

use to make this decision. *Results:* Responses from 10 of 17 clinics were received. One clinic had written guidelines. Most used decline in respiratory function, dysphagia, weight loss or some combination of all three. Six clinics reported dropping FVC, ranging from 70% to 50% as prompting tube insertion. Five clinics reported weight loss as part of their criteria. Dysphagia was reported as the most important factor by 7 clinics. Psychological readiness for tube placement was a key factor in 3 clinics. Some clinics comment they place tubes in advance of dysphagia. *Conclusion:* Criteria for tube insertion varies between clinics. Practices generally reflect published recommendations, but vary on the emphasis of specific criteria. The lack of strong scientific evidence to guide decisions may contribute to management variability. Further study is needed to guide practice.

## P.048

### Auto-antibodies against gangliosides in patients with Charcot-Marie-Tooth disease

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*Background:* In Charcot-Marie Tooth (CMT), vital components of either the myelin sheath or axon are abnormal, slowing nerve conduction and causing functional disability. Recently, there has been speculation the CMT may have an autoimmune component resulting from abnormal protein expression. *Methods:* Custom autoimmune neuropathy-focused microarray panels were printed in-house using antigens from Sigma, Abnova, Fitzgerald and Matreya according to Cambridge Life Science instructions. Antigens including Myelin Protein Zero, Peripheral Myelin Protein 22, and 20 other well-known gangliosides were tested for IgM and IgG antibodies. Students T-Test and Bonferroni correction factor were used to determine statistical significance between groups and in post-hoc subgroup analysis. *Results:* Plasma was tested from 17 patients with CMT and 25 young healthy individuals. CMT population consisted of 9 CMT-1a, 1 CMT-1b, 4 CMT-2a, 2 CMT-2f and 2 undetermined CMT type 2 patients. No ganglioside reached statistical significance under a Bonferroni Correction factor ( $p > 0.01$ ) nor were any gangliosides notably raised compared to normal. Sub-group analysis did not reveal theorized peak auto-antibodies levels depending upon their CMT subtype compared to normal. *Conclusions:* Although previously shown to have increased auto-antibodies to myelin or axonal proteins, CMT individuals did not demonstrate increased autoantibody levels for the proteins tested at our centre.

## P.049

### Intravenous Immunoglobulins (IVIG) in Chronic Inflammatory Demyelinating Polyneuropathy (CIDP): time to maximal recovery

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*Background:* The response of Chronic Inflammatory Demyelinating Polyneuropathy (CIDP) to Intravenous Immunoglobulins (IVIG) treatment is well established. However, determination whether patients who do not respond to 2 IVIG treatments or those whose condition stabilizes (ICE Trial) would benefit from additional treatments remains unclear. We aim to identify time period required

to reach maximal strength gains from IVIG treatment (plateau). Furthermore, we will assess nerve conduction studies (NCS) changes over time with IVIG treatment. This will help in establishing a time course for treatment of CIDP with IVIG to maximize recovery. *Methods:* We performed a retrospective chart review of 27 patients with CIDP, with diagnosis confirmed by European Federation of Neurological Societies/Peripheral Nerve Society Guidelines (EFNS/PNS). Each patient's strength response including: grip strength, knee extension, elbow flexion and dorsiflexion (using JAMAR Dynamometer) and NCS changes over time during IVIG treatment were analyzed. *The primary outcome* is duration of IVIG treatment, in months, required to reach a plateau in strength. *Secondary outcome* is NCS change including: Terminal Latencies, Conduction Velocities, Compound Sensory and Motor action potentials in nerves of upper and lower extremities over treatment time (emerging trends). *Results:* Pending (available by April 2015) *Conclusion:* Pending (available by April 2015)

## P.050

### Acute combined central and peripheral demyelination: a case report

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*Aim/Background:* We report a case of Acute Combined Central and Peripheral Demyelination (ACCPD). This rare disease presents with features of both peripheral and central demyelination. *Methods:* Case Report *Results:* A 24 year-old Iraqi female presented with acute onset of ascending paralysis, numbness and areflexia over the course of a few days. Systemic examination was negative. She responded to IVIG. She suffered two severe relapses over the next three months, which resolved rapidly with PLEX/corticosteroid. CSF was normal after first and second relapses. Brain and cord MRI revealed multiple T2/FLAIR hyperintensities consistent with multiple sclerosis. There were no longitudinally extensive cord lesions. Aquaporin 4 antibody assay is pending. ANA was strongly positive; anti-DSDNA and SS antibodies were negative; complement 4 was low and serum cryoglobulins were positive. Hepatitis C was negative. Ganglioside antibody assay was negative. Anti-neurofascin is pending. Neurophysiology confirmed features of an acquired demyelinating neuropathy with profound secondary axonal denervation. *Conclusions:* The underlying etiology of ACCPD is presumed autoimmune likely secondary to auto-antibody targeting of central and peripheral myelin epitopes. Low complement component 4 and cryoglobulinemia in this patient supports an autoimmune pathogenesis. Neurofascin has been previously reported as one such auto-antibody in ACCPD.

## P.051

### Geographic distribution of Multiple Sclerosis (MS) mortality rates in Canada, 1975-2009

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*Background:* Our study examined whether there are differences in MS mortality rates across regions of Canada, which might