in Victoria (13.0%). Oral DMTs were most common in NSW (44.0%) and least common in Tasmania (29.3%). Infusion DMTs were most common in Tasmania (47.4%) and least common in ACT (27.7%).

Conclusion We have demonstrated marked variation in DMT use in different Australian states and territories during the study period. The use of DMTs in Australia has evolved over time,[3] but differences between states/territories remain unexplained. We plan to investigate the observed clinical variation in future studies.

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090 PAINLESS PROGRESSIVE MONONEURITIS MULTIPLEX SECONDARY TO AML ASSOCIATED NEUROLEUKAEMIOSIS

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Objectives To report the clinical history, imaging and neurophysiology findings of a case of mononeuritis multiplex caused by acute myeloid leukemia (AML) neuroleukaemiosis

Case A 58-year-old male presented with painless and progressive mononeuropathies after completing high dose cytarabine consolidation treatment for AML. Nine days following chemotherapy a right third nerve palsy developed followed by right 5th, right 7th, left 3rd and left radial, ulnar and peroneal neuropathies.

Serial MRI and PET imaging was unremarkable and 2 cerebrospinal fluid (CSF) were normal. Nerve conduction studies demonstrated abnormal right blink responses, a peroneal neuropathy and evidence of conduction block at a non-compressible site within the left ulnar nerve, however nerve ultrasound did not demonstrate any causative lesion.

Differentials considered included opportunistic fungal infections and a paraneoplastic neuropathy. A third CSF sample performed on day 24 demonstrated myeloblasts, consistent with central nervous system leukaemic infiltration. A diagnosis of neuroleukemiosis was made and intrathecal chemotherapy (initial methotrexate [MTX] and cytarabine, followed by alternating MTX/cytarabine twice a week) plus systemic chemotherapy (fludarabine, cytarabine, idarubicin) and granulocyte-colony stimulating factor was commenced resulting in partial resolution of pre-treatment symptoms.

Conclusions Progressive neuropathies in patients with leukemia are rarely reported and can be diagnostically challenging. Mononeuritis multiplex associated with AML may be painless and focused imaging may fail to demonstrate significant abnormalities. A high index of clinical suspicion is required as the differential diagnoses of neuroleukaemiosis is broad including paraneoplastic syndromes, infection and inflammatory conditions. As in this instance multiple CSF examinations maybe required to confirm its diagnosis.

091 THE IMPACT OF DEVICE-ASSISTED THERAPY INITIATION ON THE GUT MICROBIOME IN PARKINSON'S DISEASE

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Objectives Several studies have evaluated the impact of oral medication on the gut microbiome (GM) in Parkinson's disease (PD). However, the impact of PD device-assisted therapies (DAT) on the GM remains to be investigated. We profiled acute temporal GM stability around the initiation of PD DAT.

Methods The GM of 21 PD patients initiating either Deep Brain Stimulation (DBS) or levodopa-carbidopa intestinal gel (LCIG) were compared to 10 spousal healthy control (HC) subjects. 16S amplicon sequencing of the V3-V4 region of stool bacterial DNA was used to compare temporal GM stability between groups and with clinical outcome measures, including disease alternations relative to therapy initiation. GM response to therapy in the PD group was assessed by comparing pre-therapy (-2 and 0 weeks) with post-therapy initiation timepoints (+2 and +4 weeks) and HCs at baseline (0 weeks).

Results Altered GM compositions were noted between the PD and HC groups at various taxonomic levels, including specific differences for DBS and LCIG therapies. Beta diversity changes were also identified across the 4 week post-treatment initiation period, implying a therapy-effect on the GM.

Conclusions We present the first acute longitudinal assessment of GM response to PD DAT. The pre-treatment PD-specific GM (consistent with previous studies) was altered following DAT initiation, indicating DATs have a modulatory impact on the GM in PD.

092 CRYOLIPOLYSIS-INDUCED RADIAL MONONEUROPATHY

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Objectives To report an association between cryolipolysis or 'fat-freezing' in the upper arm and development of an acute radial neuropathy likely secondary to a combination of thermal and pressure effects.

Results A 31-year-old female presented with an acute right wrist drop that occurred following a cryolipolysis procedure to the upper right arm. Paraesthesia and numbness occurred towards the end of a 40-minute cryolipolysis procedure, with weakness reported within 24 hours. Examination of the arm 1 week following symptom onset revealed a significant ecchymosis at application site of the fat freezing device. In addition,