Methods Retrospective review of clinical records and diagnostic tests.

Results A 78-year-old man with cerebral and lung melanoma metastases was treated with nivolumab, the newly developed monoclonal antibody which inhibits PD-1 deactivation of T-cells. He showed good radiological response.

Three months after ceasing nivolumab, he presented to ED with acute confusion, aphasia, left-sided weakness and neglect as a stroke call. MRI demonstrated no evidence of stroke or acute encephalitis. EEG showed diffuse slowing. Lumbar puncture was not performed as he was therapeutically anticoagulated and had begun to improve on empirical antibiotics and acyclovir. One week later, he suddenly deteriorated with fevers and reduced level of consciousness. Acyclovir was restarted. Repeat EEG revealed periodic epileptic discharges over the right hemisphere and MRI demonstrated hyperintense signal and diffusion restriction of the right mesial temporal lobe suggestive of encephalitis. Subsequent lumbar puncture was negative for HSV, VZV, enterovirus, and autoimmune encephalitis antibodies.

The patient's oncology team had been in support of a course of methylprednisone on suspicion of autoimmune encephalitis, but by the time the lumbar puncture results returned he was again improving. A diagnosis of suspected nivolumab-induced encephalitis was made based on exclusion of other possible diagnoses.

Conclusions The rising use of immune checkpoint inhibitors heralds an array of new and unexpected neurological complications including autoimmune encephalitis. A nationwide registry of possible cases may be helpful in improving our currently limited understanding of these emerging complications.

114 COGNITIVE IMPAIRMENT IN THE COMMUNITY: A 16-MONTH AUDIT STUDY OF A NEUROLOGY MEMORY CLINIC IN THE INNER SYDNEY REGION

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Introduction Neurodegenerative disease is increasingly common, but neurology service utilisation by this population is unclear. This study presents an integrated metropolitan neurology clinic as a model of care, and examines care pathways and characteristics in patients with cognitive decline.

Methods An audit of patients with dementia (n=136, 51–96 yr, M:F1.1:1) and mild cognitive impairment (MCI) (n=28, 56–83 yr, M:F0.6:1) over a 16 month period was performed using retrospective analysis of demographic characteristics, clinical information and frailty measures.

Results The average duration of cognitive decline at presentation was 2.7 years in dementia (n=135, M=3.1, F=2.3) and 1.5 years MCI (n=28, M=1.7, F=1.3). Average age of patients with newly diagnosed dementia was 72 (M:F0.96:1) and MCI 70 (M:F1.03:1) with Alzheimer's disease in 86(64%) dementia with Lewy bodies 13(10%) frontotemporal dementia 11(8%) and distinct overlap syndromes in 7(5%).

Depression was associated with younger age at diagnosis (ave.60) versus anxiety(74) and agitation(75). Psychosis was in 14(10%) REM sleep behaviour disorder 6(5%). In the 12 months prior, falls were seen in 30(22%) and weight loss 29(21%). Allied health input occurred in 81% of dementia versus 68% MCI cases.

Conclusions Delay in diagnosis from first clinical manifestation, high rate of psychological and medical comorbidity, presence of overlap syndromes, and allied health requirement, support the need for integrated neurological services in dementia.

115 IS MBS RESTRICTION ON EEGS TRULY BENEFICIAL? RETROSPECTIVE OBSERVATIONAL ANALYSIS OF EEG REFERRAL PATTERNS

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Introduction The November 2018 Medicare Benefits Schedule (MBS) Taskforce draft report recommends standardised national referral form for routine electroencephalogram (EEG) requests to prevent low value clinician referrals. MBS defines twelve clinical presentations where routine EEG is of relatively low diagnostic value. We aim to identify proportion of MBS defined low diagnostic value EEGs and likely referral patterns.

Methods Retrospective single centre observational study was conducted from January to December 2018. All EEG referrals to a tertiary hospital neurodiagnostic unit were categorised as low or high yield based on MBS recommendation. Sub-group analysis of the low yield group was carried out.

Results Total of 1210 EEG referrals were analysed and 5 were excluded from analysis due to insufficient clinical data. Of these referrals 1114 (92.4%) were for high yield indications, 77 (6.4%) for low yield and 14 (1.2%) were indeterminate as to low or high value. Of low yield referrals, 70% were referred for syncope or presyncope and 18.2% for psychogenic nonepileptic seizures. Low yield EEGs were referred by hospital doctors, neurologists and general partitioners by proportions of 37.7%, 33.7% and 28.6% respectively. Four (5.2%) low diagnostic value EEGs were abnormal.

Conclusion Current clinical practice for EEG referrals is in line with MBS draft review recommendations. We believe addition of a standardised referral form and restricting referrals will have minimal impact on referral quality.

116 ALTERED PERIPHERAL AXONAL PROPERTIES IN FIBROMYALGIA

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Introduction Fibromyalgia (FM), a common chronic widespread pain syndrome with neurological symptoms affecting ~10% of the population worldwide. Whereas small fibre