were interrogated to identify pathogens. A host transcriptomic MLC was developed from human RNA transcripts using 70 cases. The MLC and mNGS reporting thresholds were then tested on 108 blinded cases within the cohort. 

**Results** mNGS was 75% concordant[27/36] for detecting TB in definite TBM cases and 59% concordant[30/51] in definite/probable TBM combined. 3 TB and 3 non-TB pathogens were detected in the probable TBM group. In the possible TBM/indeterminate groups, mNGS identified 3 cases of TB and 17 other pathogens. The combined mNGS and host-MLC displayed 83.3%(5/6) sensitivity, 86.8%(59/68) specificity, with an area under the ROC curve of 0.83(p=0.009).

**Conclusion** mNGS identified an array of infectious TBM mimics, including many treatable and vaccine preventable pathogens. mNGS was 75% concordant with definite TBM. We further enhanced the sensitivity of the CSF mNGS assay by developing the first CSF-based host MLC to discriminate between TBM and its mimics.

**039 PREVALENCE OF MRI SIGNS OF INTRACRANIAL HYPERTENSION AND THEIR ASSOCIATION WITH PAPILLEDEMA: A PROSPECTIVE STUDY USING OCULAR FUNDUS PHOTOGRAPHY**

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*Abstract* Of 296 patients included, the most common indication for MRI was surveillance of a brain neoplasm (27.7%). Investigation of headaches (8.8%) or disorders of raised ICP (1.4%) were uncommon. At least one MRI-IH was present in 49% of patients [empty sella (33.1%), enlarged Meckel’s cave (15.9%), increased peri-optic CSF (10.8%), optic nerve tortuosity (7.8%), scleral flattening (0.7%), cephaloceles (1.4%)]. Bilateral transverse venous sinus stenosis (TVSS) was present in 3.0% of 198 patients. Five patients (1.7%) had papilledema. Compared to patients without papilledema, those with papilledema had significantly higher BMI and papilledema. The prevalence of papilledema increased from 2.8% among patients with at least one MRI-IH to 40% among patients with four or more MRI-IH.

**Conclusion** MRI-IH are common in patients undergoing brain MRI, but rarely associated with papilledema. The management of patients with incidentally detected MRI-IH likely does not require systematic lumbar puncture unless concerning symptoms or papilledema are present.

**040 THE QUEST TO REDUCE STROKE TREATMENT DELAYS AT A MELBOURNE METROPOLITAN PRIMARY STROKE CENTRE OVER THE LAST TWO DECADES**

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*Abstract* Targeted quality improvement initiatives are key to reducing treatment delays in the Australian metropolitan setting. Relative stagnation in DNT improvement is concerning and needs further investigation.

**041 COGNITIVE IMPAIRMENT IN LATE ONSET EPILEPSY**

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*Abstract* Late onset, unprovoked epilepsy patients with cognitive impairment can have complex pathophysiology. Our objective was to study the characteristics and contributors of cognitive impairment in this group; and how patients with dementia could be differentiated from late onset epilepsy patients. 

**Methods** Twenty-six patients with epilepsy, onset after 50 years of age, with new cognitive complaints and 26 patients with clinically diagnosed Alzheimer’s Disease (AD) were recruited. These participants had comprehensive neuropsychological and neuroimaging assessments. A subset of 17 participants from the Epilepsy group underwent longitudinal neuropsychological assessment.

**Results** In the Epilepsy group, the neuropsychological profile of cognitive impairment was consistent with the foci and severity of seizure activity in 46% of participants; subcortical
Abstracts

We present a range of rheumatological cases with unusual neurological presentations that demonstrate this point including; C2-C3 facet arthropathy in Diffuse Scleroderma, Granulomatosis with polyangitis manifesting with craniofacial involvement, pseudo vasculitis associated cerebrovascular events, SAPHO syndrome with a thoracic syrinx, Neuro-Bechter’s vasculitis with tumour-like CNS lesions, Polybasia in Paget’s disease and others.

Conclusions Familiarity with the neurological manifestations of rheumatologic diseases is important for both rapid diagnosis and appropriate intervention.

Poster abstracts

042 A CASE OF ISOLATED MUSCULOCUTANEOUS NERVE INJURY FOLLOWING SKYDIVING SIMULATION
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Background Isolated musculocutaneous nerve injuries are rare, and mostly iatrogenic or traumatic.

Case Presentation We present a case of isolated musculocutaneous neurapraxia in an otherwise well young woman following uncomplicated simulated skydiving.

Management and Outcome While the injury was quite debilitating, complete neurological recovery occurred within two months without any intervention.

Discussion This case illustrates a rare pattern of neurological injury, caused by a recreational activity growing in popularity.

The pattern of injury mimics that of an upper trunk brachial plexopathy or C5/6 radiculopathy. Increased awareness of the injury avoids misdiagnosis and affords the opportunity for prevention.

043 NEUROLOGICAL MANIFESTATIONS IN RHEUMATOLOGICAL DISEASE: A CASE SERIES I
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Objective Rheumatology encompasses a broad range of multi-systemic, autoimmune and inflammatory disorders. Neurological manifestations of these diseases are not uncommon. Neurological findings may predate rheumatological findings or may emerge months to years post initial diagnosis. Rheumatological diseases presenting as neurological syndromes can cause diagnostic challenges.

Methods/Results We present a range of rheumatological cases with unusual neurological presentations that demonstrate this point including; C2-C3 facet arthropathy in Diffuse Scleroderma, Granulomatosis with polyangitis manifesting with craniofacial involvement, pseudo vasculitis associated cerebrovascular events, SAPHO syndrome with a thoracic syrinx, Neuro-Bechter’s vasculitis with tumour-like CNS lesions, Polybasia in Paget’s disease and others.

Conclusions Familiarity with the neurological manifestations of rheumatologic diseases is important for both rapid diagnosis and appropriate intervention.

044 METABOLIC SYNDROME IN A NEW ZEALAND GLIOBLASTOMA COHORT 2005–2020: A RETROSPECTIVE ANALYSIS AND REVIEW OF THE LITERATURE
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Background Glioblastoma (GBM) is an aggressive form of glioma. Even with standard-of-care Stupp protocol (surgery, radiotherapy, and temozolomide), median overall survival is only 10-12 months in population-based studies. Metabolic reprogramming is a hallmark of glioblastoma, with energy metabolism aberrantly geared towards aerobic fermentation. The prevalence of metabolic syndrome is 16% in the general NZ population and 32% in the Maori population.

Objectives We aimed to determine 1) if metabolic syndrome was more prevalent in our GBM cohort compared to general NZ population 2) if metabolic syndrome was associated with worse overall survival in GBM 3) if ethnicity influenced survival outcomes.

Methods We performed a retrospective analysis of 170 patients diagnosed and treated for GBM between 2005–2020 in one institution. Clinical and biochemical data relating to metabolic syndrome were collected. Overall survival was determined from the date of initial a surgical diagnosis to the date of death or data acquisition.

Results 18.2% of GBM patients met the criteria for metabolic syndrome, 27.7% of Maori and 16.1% of European New Zealanders. Patients with metabolic syndrome had statistically significant worse overall survival compared to those patients without metabolic syndrome regardless of treatment [mean 9.7 vs 18.4 months] p = 0.016 (p≤0.05). Power was too low to comment on the prevalence of metabolic syndrome or ethnicity.

Conclusion Our study demonstrates that metabolic syndrome is associated with statistically significant poorer outcome in GBM patients. Consequently, this data will provide a control group for our current prospective study investigating the anti-neoplastic effects of metabolic therapies in GBM.

045 MULTIPLE CRANIAL NEUROPATHIES IN A PATIENT WITH SYPHILITIC MENINGITIS
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Objective The aim of this case report is to highlight the wide spectrum of symptoms that may present in a patient with syphilitic meningitis.

Case Presentation We report the case of a 72-year-old man with a 1.5 month history of generalized weakness and a 4 month history of painless hearing loss. Neurological examination was notable for areflexia, bilateral optic atrophy, and a right-sided facial numbness.

Discussion In this report, we aim to demonstrate the wide spectrum of symptoms that can be present in a patient with syphilitic meningitis. This is the first time in the English literature that we have reported a case of trigeminal radiculopathy, peripheral neuropathy, and otitis media in a patient with syphilis.

Conclusion Our case highlights the importance of considering syphilis in the differential diagnosis of a patient with neurological symptoms.