

Brunei International Medical Journal

The cover features a purple and blue gradient background with white wavy lines. At the top left, the 'NCD 2025' logo is displayed in white, with 'INTERNATIONAL NON-COMMUNICABLE DISEASES EXHIBITION & CONFERENCE' written below it. To the right of this is the text 'BRIDGING HEALTHCARE & COMMUNITIES'. Further right, under 'EVENT ORGANISERS:', are logos for the Ministry of Health (in Malay), Jerudong Park Medical Centre, and Gleneagles JPMC Brunei Darussalam. Under 'EVENT MANAGER:', there are logos for Sunlit and a '40' anniversary logo. The central text reads 'International NCD Conference' in large white font, with '10th - 12th October 2025' below it. The bottom half of the cover shows a stylized illustration of a modern medical building at night, with lights glowing from the windows and a dark sky with stars.



DAY 1: FRIDAY 10TH OCTOBER 2025 (15:45-17:00)

Session 1: Surveillance, Risk Assessment, and Epidemiology

PRESENTER	TITLE
Parameswary SUBRAMANIAM	Prevalence of Factor XI Deficiency in Brunei Darussalam
Mariyam IMAN	Prevalence And Associations of Atherosclerosis in Ischemic Stroke Patients
SHER WALI KHAN	Incidence and Predictors of Recurrent Stroke in Patients with Cryptogenic Stroke
Nur SYAHIRAH CHUA	Prevalence and Predictors of Postpartum Depression in Brunei Darussalam
JADRIEN Lo Wei Xiang	Clinical Factors Associated with the Progression of Diabetic Kidney Disease

Prevalence of Factor XI Deficiency in Brunei Darussalam.

Parameswary Subramaniam, Noorainun Yusof, Roserahayu Idros.
Haematology Unit, Department of Internal Medicine, RIPAS Hospital, Brunei Darussalam.

Introduction: Factor XI (FXI) deficiency is a rare inherited bleeding disorder with a global prevalence of 1 in 1,000,000 people for the autosomal recessive form and 1 in 30,000 for the autosomal dominant. The aim of this study is to evaluate prevalence and characteristics of FXI deficiency cases in Brunei Darussalam.

Materials and Methods: A retrospective cross-sectional analysis of FXI deficiency cases from national electronic medical records between 2013 and 2023.

Results: A total of 48 patients with FXI deficiency were identified. The mean age at diagnosis was 43 years, with an age range from 16 to 82 years. There were 20 males and 28 females, giving a male-to- female ratio of 0.71. The diagnosis was made incidentally in 18 patients (37.5%), during pre-operative assessment in 17 patients (35.4%), and through family screening in 3 patients (6.3%). Only 10 patients (20.8%) were diagnosed due to bleeding symptoms. A non-bleeding phenotype was observed in 38 patients (79.2%), while 10 patients (20.8%) had mild bleeding symptoms. Factor XI activity levels were available for 47 individuals; among them, 28 patients (59.6%) had FXI levels below 20%, while 19 patients (40.4%) had levels above 20%. Based on recorded ethnicity, 37 patients (77.1%) were Malay, 6 (12.5%) were Chinese, and 5 (10.4%) were of Dusun origin. The estimated population of Brunei Darussalam in 2021 was approximately 450,000.

Conclusion: The prevalence of FXI deficiency in Brunei Darussalam is estimated at 10 per 100,000 population, likely underestimated due to limited family screening and undiagnosed cases. The elevated prevalence may be partly attribut-

ed to consanguineous marriages within the population. Genetic testing could aid in characterising FXI deficiency more precisely and enhance understanding of its clinical and molecular profile in Brunei.

Prevalence And Associations of Atherosclerosis in Ischemic Stroke Patients in Brunei.

Mariyam IMAN, Danjuma ABDULLAHI, Hanif Abdul RAHMAN, Dayangku Siti Nur Ashikin PENGIRAN TENGAH, Sunithi MANI.
PAPRSB Institute of Health Sciences & BNSRC, PJSC, JPMC, Brunei Darussalam.

Introduction: Atherosclerosis that commonly occurs in ischemic stroke can occur in the extracranial or intracranial vessels; intracranial atherosclerosis is the predominant location of atherosclerosis in Asian countries. We aimed to estimate the prevalence of extracranial and intracranial atherosclerosis in Brunei within a cohort who presented with acute stroke symptoms to a tertiary care centre. The risk factors affecting the extracranial or intracranial atherosclerosis were investigated. Ischaemic strokes subtypes were investigated for presence of coexisting cervico-cerebral atherosclerosis.

Materials and Methods: 131 consecutive patients over a 6-month period were studied. Ethics clearance was obtained prior to the study. Findings on cranial MRI and Ultrasound Doppler of neck arteries were studied and documented. Risk factors and stroke subtypes were investigated using clinical records. Statistical tests were done using SPSS software.

Results: Atherosclerosis was seen in 88% of the cohort. Intra (IC) and extracranial (EC) atherosclerosis was seen in 50.4%, isolated intracranial atherosclerosis in 12.2%. Significant intracranial stenosis was found in a larger number of patients than significant extracranial stenosis (32 vs 5). The risk factors hypertension, diabetes and hyperlipidemia were not significantly associated with

atherosclerosis, but 45% of the cases with significant IC disease had all three risk factors. Coexistent atherosclerosis of the cervicocerebral vessels was present in those who had large artery atherosclerosis, cardio-embolism and small vessel disease.

Conclusion: While intra and extracranial atherosclerosis is seen in more than 50% of the patients presenting with acute stroke, significant IC disease is significantly more than EC atherosclerotic disease in this cohort in Brunei.

Incidence and Predictors of Recurrent Stroke in Patients with Cryptogenic Stroke Later Diagnosed with Atrial Fibrillation.

SHER WALI KHAN, IKRAM ULLAH, FARWA MUNIR, AYESHA FAYYAZ.

Introduction: Cryptogenic stroke (CS) represents a significant subset of ischemic strokes, with paroxysmal atrial fibrillation (AF) frequently identified as a hidden aetiology. In resource-limited settings like Pakistan, delayed AF detection due to limited access to extended cardiac monitoring increases the risk of recurrent stroke. This study aimed to determine the incidence and predictors of recurrent ischaemic stroke in patients initially diagnosed with CS and later diagnosed with AF at Lady Reading Hospital (LRH), Peshawar.

Materials and Methods: A retrospective cohort study was conducted from January 2018 to December 2023. Patients aged ≥ 18 years with CS and subsequent AF diagnosis within 12 months (confirmed via ECG, Holter, or ILR) were included. Data was collected on demographics, imaging, anticoagulation adherence, and stroke recurrence. Kaplan-Meier and Cox regression analyses were performed to identify independent predictors.

Results: Out of 406 CS patients, 109 (26.8%) were diagnosed with AF. Recurrent stroke occurred in 32 patients (29.4%). The median time to AF diagnosis was 5.5 months, and to recurrence, 13.8 months. Only 34.4% of recurrent cases were anticoagulated at the time of recurrence. Independent predictors included age over 65 years (HR: 2.21), AF diagnosis after 6 months (HR: 2.58), non-adherence to anticoagulation (HR: 3.44), and left atrial enlargement (HR: 2.03). Mortality and disability were significantly higher in the recurrence group. (Figures 1 and 2).

Conclusion: High recurrence rates in CS-AF patients are driven by delayed AF detection and poor anticoagulation adherence. Prolonged cardiac monitoring and access to NOACs are critical for reducing stroke recurrence in low-resource settings.

Figure 2. Predictors of Recurrent Stroke

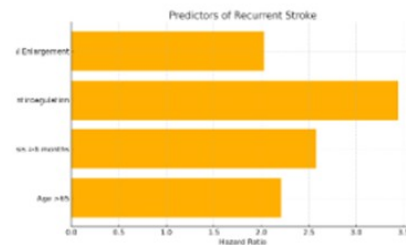
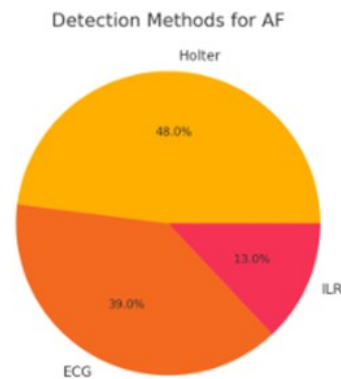


Figure 1. Detection Methods for AF



Prevalence and Predictors of Postpartum Depression in Brunei Darussalam.

Nur SYAHIRAH CHUA*, Noh AMIT^, Mahadir AHMAD^m Alinah Haji TAMIN*, Faezah binti Dato Seri Setia Dr Haji Mohd AMIN**, Rina Ramizah Binti RAHMAD*, Nur Hazwana Binti MD ZAIN*

*Community Psychology Division, Department of Health Services, Ministry of Health Brunei Darussalam

**Health Promotion Center, Ministry of Health Brunei Darussalam

^Community Health Research Center (ReaCh), Faculty of Health Sciences, National University of Malaysia (Universiti Kebangsaan Malaysia)

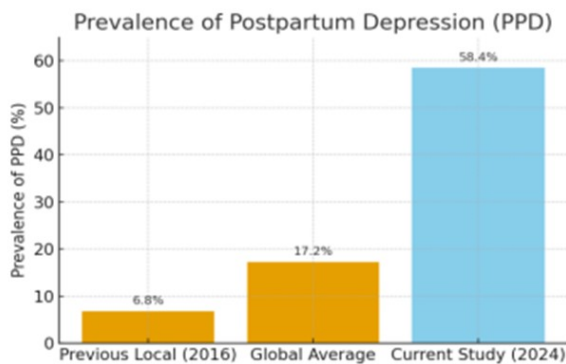
Introduction: Postpartum depression (PPD) is a variant of major depressive disorder with adverse consequences for mothers and children if untreated. Despite rising global attention, research in Brunei Darussalam remains limited. This study aimed to establish the prevalence of PPD and identify its predictors among postpartum women in Brunei Darussalam.

Materials and Methods: A cross-sectional online survey was conducted in May 2024 with 514 mothers (4 weeks–12 months postpartum) recruited via the Ministry of Health’s Instagram.

Measures included the Edinburgh Postnatal Depression Scale (EPDS), Perceived Stress Scale (PSS-10), and Multidimensional Scale of Perceived Social Support (MSPSS). Data were analysed using ANOVA, t-tests, chi-square, and binary logistic regression ($p < .05$).

Results: Among 514 participants, 58.4% screened positive for PPD (**Figure**). Younger mothers (18–29), unmarried, unemployed, and those from low-income households recorded higher EPDS scores. PPD was associated with high stress, low social support, and personal/family history of mental health issues. Obstetric factors were not significant. Binary logistic regression identified perceived stress as the strongest predictor of PPD (OR = 1.56, 95% CI [1.43–1.71], $p < .001$).

Conclusion: This study revealed a substantially higher prevalence of PPD compared to both local and global estimates, underscoring an urgent need for systematic early screening, greater public awareness, and culturally sensitive mental health interventions in Brunei Darussalam. Findings highlight stress as the most salient predictor, emphasising the importance of targeted stress management and enhanced social support for new mothers.



Clinical Factors Associated with the Progression of Diabetic Kidney Disease.

JADRIEN Lo Wei Xiang, FAZEAN Irdayati binti Haji Idris, HJH MAS RINA Wati binti Hj Abdul Hamid, JACKSON Tan Chee Seng, LINA Chong Pui Lin, NURSHAZWANI Hj Mat Salleh.

PAPRSB Institute of Health Sciences & BNSRC, PJSC, JPMC, Brunei Darussalam,

Department of Renal Medicine, Ministry of Health & Endocrine Unit, Department of Internal Medicine, RIPAS Hospital, Brunei Darussalam.

Introduction: Globally, diabetic kidney disease (DKD) is the key driver of chronic kidney disease (CKD) and end-stage kidney disease (ESKD). In Brunei Darussalam, DKD is

the leading cause of ESKD requiring renal replacement therapy. This study aimed to describe the sociodemographic characteristics, clinical profiles and biochemical parameters of patients with diabetes, and evaluate their association with DKD severity based on eGFR adjusted for age and gender.

Materials and Methods: This was a cross-sectional study conducted between December 2024 and April 2025 on patients with diabetes at the Endocrine Centre, RIPAS Hospital. Sociodemographic characteristics, relevant medical history and biochemical parameters such as haemoglobin, HbA1c, lipid profile, creatinine, urine ACR and PCR were collected and analysed.

Results: Among 138 patients with diabetes (46.4% males, 53.6% females), the majority were aged 50–59 (26.1%) with type 2 diabetes (92.8%), hypertension (79.7%), hypercholesterolemia (83.3%) and obesity (37.7%). Nearly half (44.2%) had diabetes >10 years. DKD was observed in 39.1% of individuals and was significantly associated with age 30 years ($p=0.012$), male gender ($p= 0.037$), longer diabetes duration ($p=0.001$), hypertension ($p<0.001$), cardiovascular disease (CVD) ($p=0.031$), retinopathy ($p<0.001$), and neuropathy ($p=0.002$). All these factors, except retinopathy, were significantly associated with the severity of DKD (**Table 1**).

Conclusion: Older age, male gender, longer duration of diabetes, hypertension, CVD, retinopathy, and neuropathy were significantly associated with DKD. Early identification of patients at risk of developing DKD and prompt use of targeted therapies may delay their progression to ESKD. Education for both patients and healthcare professionals is vital alongside a multidisciplinary approach in managing DKD.

Table 1 shows the clinical factors associated with the severity of DKD

Clinical Factors	Association with DKD severity (p value)
Age	Significant ($p= 0.016$)
Male Gender	Significant ($p= 0.027$)
Duration of Diabetes	Significant ($p= 0.035$)
Hypertension	Significant ($p= 0.041$)
Cardiovascular Disease	Significant ($p= 0.001$)
Retinopathy	Not Significant
Neuropathy	Significant ($p= 0.027$)

DAY 2: SATURDAY 11TH OCTOBER 2025 (13:30-15:30)
Session 2: Patient-Centered Care and Clinical Practice

PRESENTER	TITLE
MOHD HAFIZ JAIDI	Medication Adherence Among Type 2 Diabetic Patients at Berakas Health Centre
Muhamad AIMAN bin Muhamad Sophian	From Guidelines to Clinical Practice: A Clinical Audit of Perioperative Diabetes Guideline Compliance
SEIT Mei Chien	Experiences, Benefits, Barriers and Expectations Towards Cancer Care in Primary Care
Hj Muhammad Al-Amin Bin Hj Jamain	Comparison of the Quality of Life and Biochemical Characteristics of Patients Undergoing Haemodialysis and Peritoneal Dialysis

Medication Adherence Among Type 2 Diabetic Patients at Berakas Health Centre.

Mohd Hafiz Jaidi, Nurolaini Kifli, Roserahaini Idros.
 Ministry of Health, Brunei Darussalam.
 Institute of Health Sciences, PAPRSB, Universiti Brunei Darussalam

Introduction: Diabetes mellitus, particularly Type 2, poses a significant global health burden, with rising prevalence and associated complications. Medication adherence is critical for optimal glycaemic control and prevention of diabetes-related complications. This cross-sectional study aimed to assess the degree of medication non-adherence among Type 2 diabetic patients at the Berakas Health Centre in Brunei and identify associated factors.

Materials and Methods: Using the validated Malaysia Medication Adherence Assessment Tool (MyMAAT), 350 patients were surveyed over a three-month period.

Results: The study found a non-adherent rate of 58.9%, aligning with similar findings in neighbouring countries. Significant associations were observed between non-adherence and sociodemographic factors, particularly employment status ($p = 0.036$) and lower educational attainment ($p = 0.015$). Additionally, non-adherent patients exhibited higher HbA1c levels ($p = 0.017$), indicating poorer glycaemic control. The most commonly reported reasons for non-adherence included forgetfulness (61.1%), uncertainty about medication doses (57.1%), and fear of side effects (55.7%). These findings underscore the need for targeted interventions, such as patient education and improved healthcare communication, to enhance adherence.

Discussion and conclusion: Limitations include reliance on self-reported data and sampling from a single health centre, which may affect generalisability. Future research should incorporate multiple adherence assessment tools and broader sampling to better represent the national diabetic population. Addressing non-adherence is imperative, as improving adherence may yield greater health benefits than introducing new treatments.

From Guidelines to Clinical Practice: A Clinical Audit of Perioperative Diabetes Guideline Compliance for Adult Patients in Raja Isteri Pengiran Anak Saleha (RIPAS) Hospital.

Muhamad AIMAN bin Muhamad Sophian & NURSHAZWANI Mat Salleh.
 Department of Surger, RIPAS Hospital & Endocrinology unit, Department of Internal Medicine, RIPAS Hospital, Brunei Darussalam.

Introduction: Perioperative hyperglycaemia, seen in 20-40% of surgical patients and mostly in patients with diabetes, increases risks of wound complications and cardiovascular events. To standardise care, in 2021, perioperative diabetes guidelines for adult patients undergoing surgery was introduced in RIPAS Hospital. This audit assessed clinician adherence to the guidelines, reflecting current practices in optimising glycaemic control.

Materials and Methods: A systematic sample was drawn from BruHIMS electronic record, selecting every fourth adult patient underdoing elective or emergency surgery and referred to Endocrinology between 1st August 2023 and 31st August 2024. Data collected included admission glycaemic control, preoperative withholding of oral hypoglycaemic agents (OHAs), admission referral criteria to Endocrinology (newly diagnosed diabetes, type 1 Diabetes Mellitus, type 2 Diabetes Mellitus with HbA1c $\geq 10\%$, hypoglycaemia, blood glucose (BG; random venous or capillary) >14 mmol/L and variable rate intravenous insulin infusion (VRIII) usage), insulin and OHAs management, referrals to dietitian and diabetes nurse educators (DNE), and discharge planning. Excluded were pregnancy, age <18 years and hyperglycaemic emergencies.

Results: Among 110 patients (66 male, 44 females; all with type 2 diabetes), 23 (20%) underwent elective and 87 (79.1%) emergency surgery. Preoperative blood glucose was checked in only 35% of elective case patients. HbA1c was measured in 96% (64% had HbA1c of $<10\%$; 36% HbA1c $\geq 10\%$). Adherence to admission referral criteria was 91% for both elective and emergency cases. Most referrals were due to HbA1c $\geq 10\%$ ($n=63$; 58%), BG >14 mmol/L ($n=56$; 51%), or VRIII usage ($n=45$; 41%). No patients had hypoglycaemia on admission. OHAs were correctly withheld in 73% elective and 77% emergency cases. Postoperatively, insulin transition was correct in all cases. 76% of referrals

to dieticians and 77% to DNE were appropriate and 83% discharge prescriptions were accurate.

Conclusion: Adherence to peri-operative guidelines was high, reflecting robust clinical practice. Nevertheless, the audit pinpointed gaps in pre-operative glycaemic assessment, OHA discontinuation, allied health referrals and discharge prescriptions, warranting targeted reinforcements.

Experiences, Benefits, Barriers and Expectations Towards Cancer Care in Primary Care: Perspectives of Cancer Patients in Brunei.

SEIT Mei Chien, FAZEAN Idris, HASHMET Parveen Ghouse, SYAFIQ Abdullah, KUMAR Venkatasalu.

Department of Outpatient Services, Ministry of Health & The Brunei Cancer Centre, PJSC JPMC, Brunei Darussalam.

Introduction: Cancer remains a leading cause of morbidity and mortality in many countries, including Brunei. There is strong evidence supporting the role of general practitioners (GPs) in delivering cancer care within the concept of 'care closer to home'. This study aimed to explore cancer patients' experiences, preferences, and expectations regarding primary care involvement in their cancer journey.

Materials and Methods: A qualitative approach was used, involving semi-structured in-depth interviews with cancer patients. Interviews were audio-recorded, transcribed verbatim, and analysed using thematic analysis.

Results: Thirteen interviews were conducted, with nine participants diagnosed within the past five years. Five key themes emerged. 'Experiences with primary care' described patients' interactions prior to diagnosis. 'Misconceptions of primary care' revealed limited awareness and trust in GPs' ability to manage cancer. 'Benefits and barriers of cancer care in primary care' highlighted accessibility and convenience as potential advantages, while concerns included insufficient expertise and fragmented care. 'System errors' identified structural limitations, such as poor coordination between primary and secondary care. 'Expectations towards integration' reflected a willingness to see primary care more involved, provided that communication, continuity, and GP competence are addressed.

Conclusion: This study highlights a potential role for primary care in supporting cancer patients in Brunei. Participants expressed openness to primary care-based cancer care, valuing its accessibility and reduced waiting times. To implement this model effectively, improvements in communication between GPs and specialists, continuity with familiar GPs, and enhanced training in cancer care are essential to meet patients' expectations and ensure quality care.

Comparison of the Quality of Life and Biochemical Characteristics of Patients Undergoing Haemodialysis and Peritoneal Dialysis: A Systematic Review and Meta-Analysis.

Al Amin Jamain, Jackson Tan, Hanif Abdul Rahman.

Department of Renal Services, Ministry of Health and Institute of Health Sciences, PAPRSB, Universiti Brunei Darussalam.

Introduction: End-stage kidney failure (ESKF) is a growing global health challenge requiring kidney replacement therapy (KRT), which greatly influences patients' quality of life (QoL). Haemodialysis (HD) and peritoneal dialysis (PD) remain the two most common modalities, each exerting distinct influences on patients' QoL. The objective of this study was to evaluate and compare the QoL of patients undergoing PD and HD by utilising the 36-item Short Form Health Survey (SF-36), EuroQoL-5-dimension (EQ-5D), and WHOQOL-BREF questionnaires through a systematic review and meta-analysis.

Materials and Methods: Comprehensive searches of Science Direct, CINAHL, MEDLINE, and Google Scholar were performed to identify studies reporting QoL outcomes in ESKF patients treated with HD or PD. Validated instruments, including SF-36, EQ-5D, and WHOQOL-BREF, were used. When heterogeneity was present, standardised mean differences (SMDs) were pooled using a random-effects model.

Results: Twenty-five studies involving 5,440 patients were included, with 3,465 (63.8%) receiving HD and 1,975 (36.2%) receiving PD. PD consistently demonstrated better outcomes in several domains, particularly in burden of kidney disease, general health, mental health, and emotional well-being. However, no significant differences were observed in cognitive function, physical health, social interaction, sexual function, or sleep quality.

Conclusion: PD is associated with higher QoL compared with HD, highlighting its potential as a preferred treatment option. Despite this advantage, PD remains underutilized worldwide. These findings call for greater emphasis on PD in clinical decision-making and policy planning, ensuring patients are offered treatment pathways that maximise not only survival but also quality of life.

DAY 2: SATURDAY 11TH OCTOBER 2025 (13:30-15:30)

Session 3: Aging, Function, and Neurocognitive Health

PRESENTER	TITLE
Salwa Abdul RAHMAN	Not Frail, But Falling: Hidden Burden of Sarcopenia
Mateen Mohidin	Prevalence of Sarcopenic Obesity Amongst Patients Seen in Geriatrics Clinic
Dr Hajah Amal NADZIRAH ROSLI	Retrospective Review Of Dementia Patients And Cognitive Assessment Tests
Nuryasmin Abu BAKAR	Effects of Physiotherapy Intervention through Early Mobilisation on Functional Outcome of Acute Stroke Patients Admitted to the Intensive Care Unit (ICU): A Retrospective Analysis
Ahmed Reda Muhammed ABDELKADER	Sudden Unexpected Death in Epilepsy (SUDEP) and Clinical Risk Factors

Not Frail but Falling: Hidden Burden of Sarcopenia in Brunei Older Adults attending Geriatric Clinic.

Salwa Abdul RAHMAN & Chia Wei TAN
Geriatric Unit, Department of Internal Medicine, RIPAS Hospital, Brunei Darussalam.

Introduction: The Clinical Frailty Scale (CFS) is widely used in clinical settings for its simplicity and quick assessment of baseline function to guide management. However, individuals with early physical decline, particularly those with sarcopenia, which is characterised by age-related loss of muscle mass and muscle function, may still be classified as non-frail by the CFS leading to missed opportunities for intervention. Sarcopenia is an important age-related condition that contributes to the burden of non-communicable diseases through its links with falls, disability, and loss of independence. This study aims to examine the prevalence of sarcopenia among older adults labelled as non-frail by the CFS and to explore its association with falls and fear of falling.

Materials and Methods: A total of 282 older adults were assessed using the CFS, handgrip strength (HGS), and gait speed (GS). CFS < 4 classified as non-frail. Sarcopenia was defined as the presence of both low HGS and slow GS. Falls and fear of falling were self-reported during triage. Logistic regression was used to explore associations.

Results: Among participants classified as non-frail (n=120), 73.3% had sarcopenia. The fall rate in non-frail adults with sarcopenia was 40.9% approaching that of frail individuals (54.4%), suggesting significant physical risk despite normal appearance. Sarcopenia in non-frail adults was also associated with high odds of fear of falling (OR 5.61, 95% CI 1.40–38.10, p=0.032).

Conclusion: Many older adults classified as non-frail experience falls and meet criteria for sarcopenia. This highlights the limitations of using CFS alone and supports integrating muscle strength and gait speed assessments in routine screening.

Prevalence of Sarcopenic Obesity Amongst Patients Seen in Geriatrics Clinic.

Mateen MOHIDIN & Chia Wei TAN.
Geriatric Unit, Department of Internal Medicine, RIPAS Hospital, Brunei Darussalam.

Introduction: Sarcopenic obesity is characterised by both excess adiposity with concurrent skeletal muscle mass loss. The combination of sarcopenia and obesity is associated with poor health outcomes.

Material and Methods: With the prevalence of obesity in Brunei being one of the highest in the region, a retrospective study was conducted based on 218 patients attending geriatrics department clinic from May and June 2025. Data is collected from triage sheets that are filled in by nurses prior to seeing a physician consisting of Clinical Frailty Score (CFS), baseline mobility, SARC-F, vital signs (including height, weight and calf circumference), hand grip strength (HGS) and 6-metre walk test time.

Results: Amongst the 218 patients, 57% are female. The mean age is 80 years old. Mean body mass index (BMI) is 25.9. The prevalence of sarcopenic obesity is 14%. However, BMI was available for only 93 patients limited by difficulties in measuring height in the rest of the patients. The majority of patients are able to mobilise independently with a substantial portion of patients scoring moderate CFS (CFS 3-4). Mean SARC-F and SARC-CALF scores are 4.2 and 9.5 respectively. Mean HGS was 14.5 kg whilst the means 6-metre walk test time is 10.7 seconds. On the other hand, mean calf-circumference is 32 cm. It is found that the obese group had better HGS compared to their non-obese counterparts. Additionally, patients with higher CFS and SARC-F scores are associated with higher risk of fall.

Conclusion: Sarcopenic obesity should be treated as a distinct clinical condition separate from sarcopenia and obesity alone due to its negative synergistic effects on overall health outcomes. This study would hope to contribute to better recognition and the development of sarcopenic obesity prevention and treatment strategies.

Retrospective Review of Dementia Patients and Cognitive Assessment Tests in Geriatrics Clinic, Brunei Darussalam.

Nadzirah ROSLI & Shyh Poh TEO.
Geriatric Unit, Department of Internal Medicine, RIPAS Hospital, Brunei Darussalam.

Introduction: Dementia is a leading cause of disability among older adults and presents profound challenges for health and social care systems. Understanding the clinical characteristics and cognitive profiles of patients is essential for improving diagnosis, care planning, and resource allocation.

Materials and Methods: A retrospective analysis of electronic clinical records and paper based cognitive tests of patients assessed in a Geriatric Medicine outpatient clinic (Insert dates) was performed. Data collected included demographic characteristics, dementia subtype and severity, as well as domain-specific scores for the cognitive tests.

Results: There were a total of 144 patients, with a median age of 79 years (range 63–91), and a female predominance (55%). The most common diagnoses were Alzheimer's disease (33%), vascular dementia (24%), mixed dementia (21%) and mild cognitive impairment (12%). Median Clinical Dementia Rating (CDR) was 1.0, indicating mild to moderate functional impairment. Cognitive assessments done were the Rowland Universal Dementia Assessment Scale (RUDAS, n=90) and the Montreal Cognitive Assessment (MoCA, n=54). Cognitive test performance correlated with dementia subtype and severity. Patients with Alzheimer's disease showed prominent memory deficits, while those with vascular or mixed dementia demonstrated greater impairment in executive and visuospatial domains.

Conclusion: The clinical diversity of patients presenting with cognitive impairment reinforces the need for tailored approaches to assessment and care, which has implications for planning services.

Effects of Physiotherapy Intervention through Early Mobilisation on Functional Outcome of Acute Stroke Patients Admitted to the Intensive Care Unit (ICU): A Retrospective Analysis.

Nuryasmin Abu BAKAR, Dayangku Siti Nur Ashikin PENGIRAN TENGAH, Amri MASRI, Abang Muhammad Fahmy HEPNIE.
Brunei Neuroscience Stroke and Rehabilitation Centre, Jerudong Park Medical Centre, Brunei Darussalam.

Introduction: Early mobilisation in ICU patients has demonstrated numerous benefits, including improved functional activity, reduced pulmonary complications, shorter mechanical ventilation duration, decreased hospitalisation costs, and higher discharge rates. However, optimal treatment timing, treatment type and intensity for acute stroke

patients in ICU remain uncertain. The objectives were to investigate the correlation between the initiation time of early mobilisation and functional outcomes for acute stroke patients admitted to the ICU at Brunei Neuroscience Stroke and Rehabilitation Centre at 1-month, 3-month, 6-month, and 12-month intervals.

Materials and Methods: A retrospective cohort study using patient clinical notes and data from the electronic health record of acute stroke patients admitted to the ICU from January 2020 to May 2022.

Results: 111 out of 182 patients meeting the inclusion criteria received early mobilisation. 88 (42%) patients required invasive mechanical ventilation, with 42 patients receiving early mobilisation. Of these, 12 patients were extubated earlier ($p=0.009$) and 20 were weaned off mechanical ventilation sooner ($p=0.026$). Additionally, patients undergoing early mobilisation had shorter ICU ($p<0.001$) and hospital stays ($p<0.001$). Mobilisation within 3 days post-stroke also resulted in improved modified Rankin scores at 1, 3, and 6 months compared to later mobilisation.

Conclusion: Early mobilisation in acute stroke patients improves extubation timing, reduces mechanical ventilation duration, and shortens ICU and hospital stays. Mobilising within three days of post-stroke enhances functional recovery. Future research should focus on establishing a standardised early mobility protocol and comparing its efficacy with standard care practices.

Sudden Unexpected Death in Epilepsy (SUDEP), the SUDEP-7 inventory and other clinical risk factors.

Ahmed ABDELKADER, Hani ALHOURANI, Ananyaa KUMAR, Maysaa BASHA, Dayangku Siti Nur Ashikin PENGIRAN TENGAH.
Brunei Neuroscience Stroke and Rehabilitation Centre, Jerudong Park Medical Centre, Brunei Darussalam.

Introduction: Sudden Unexpected Death in Epilepsy (SUDEP) is the leading cause of death in epilepsy patients. There is no available data on annual SUDEP risk and counselling practices in Brunei Darussalam. Multiple studies for risk stratification and counseling have been conflicting. The SUDEP-7 Inventory assesses SUDEP risk with moderate predictive accuracy. This study aimed to compare patients with refractory epilepsy who died from SUDEP to controls using the revised SUDEP-7 inventory.

Materials and Methods: Mean SUDEP-7 inventory scores and subset risk factors of epilepsy duration and presence of three or more GTCS per year were compared in 11 SUDEP mortalities and 80 living patients with intractable epilepsy in DMC, Michigan USA. Statistical analysis included t-test in the first two and Fisher's exact test in the last parameter.

Results: The SUDEP-7 inventory was 5.81 in SUDEP cases, and 3.56 in refractory epilepsy patients ($p = 0.001$) (**Figure 1**). Nine of 11 SUDEP cases and 40 of 80 refractory group had three or more GTCS in the last year of follow up ($p = 0.04$) (**Figure 2**). The mean duration of epilepsy was 26.18 ± 20.06 (range = 5-66)

in SUDEP cases, and 20.35 ± 12.83 (range 1-53) in refractory group ($p = 0.19$).

Conclusions: In this cohort, the SUDEP-7 inventory had a good predictive value for SUDEP risk with higher scores seen in SUDEP cases with significantly more GTCS. This

provides a good basis for establishing a national SUDEP registry and conducting essential surveys for tracking, studying and preventing SUDEP in Brunei, given paucity of data on annual risk and counseling practices.

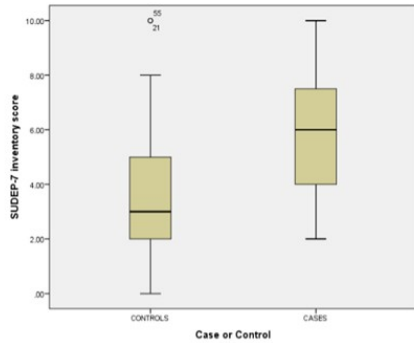


Figure 1

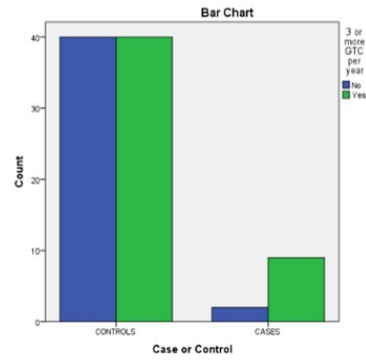


Figure 2

DAY 3: SUNDAY 12TH OCTOBER 2025 (13:30-15:30)

Session 4: Genetics, Innovation, and Mechanistic Insights

PRESENTER	TITLE
Nur 'AQILAH binti Hj Mohammad Norazmi	Genetic Polymorphism For Clopidogrel Resistance in Ischemic Stroke
Nur Izzah Binti BUNGSU	Unraveling the Role of Mitochondrial Oxidative Phosphorylation in Cancer
Su Su Aung	When the Brain Speaks Before the Heart: Cardioembolic Stroke from Atrial Myxoma
Dr Ye Thwin	Young Onset Stroke in Brunei: A Highlight on Atypical and Underrecognized Etiologies
SULWYN Fong Xue Wen	Clinical Findings of Iron Overload and Cardiac MRI Among Transfusion-Dependent Thalassemia Patients

Genetic Polymorphism for Clopidogrel Resistance in the Bruneian Population with Ischaemic Stroke.

Guan Choon CHAN, Nur 'AQILAH Binti Haji Mohammad Norazmi, MEI-ANN Lim, Dayangku Siti Nur Ashikin PENGIRAN TENGAH. PAPRSB Institute of Health Sciences & BNSRC, PJSC, JPMC, Brunei Darussalam.

Introduction: Clopidogrel is widely prescribed for the secondary prevention of cerebrovascular disease. However, genetic polymorphisms of the CYP2C19 gene can impair clopidogrel metabolism, leading to resistance and recurrent strokes. The prevalence and clinical relevance of these polymorphisms have not been previously characterised in Brunei Darussalam. This study aimed to determine the frequency of CYP2C19 genetic variants among ischaemic stroke patients in Brunei.

Materials and Methods: A retrospective study was conducted on 73 patients with ischaemic stroke or transient ischaemic attack (TIA) admitted to the Brunei Neuroscience Stroke and Rehabilitation Centre (BNSRC) between April 2023 and March 2024. CYP2C19 variant alleles (*1, *2, *3, and *17) were identified using polymerase chain reaction and classified into normal, intermediate, or poor metabolizers.

Results: Among 73 patients (mean age 60 ± 14 years; 21 females, 52 males) with ischaemic stroke or TIA, 28 (38%) had normal homozygous alleles *1/*1, 30 (41%) had heterozygous alleles involving normal allele *1 with CYP2C19 variant alleles *2 or *3 (intermediate responders), and 15 (21%) were poor metabolizers with homozygous *2 or heterozygous *2/*3 alleles.

Conclusion: 62% of patients with ischaemic stroke or TIA were

identified as intermediate or poor responders to clopidogrel, which highlights the high prevalence of CYP2C19 polymorphisms among Bruneian stroke patients. Larger prospective studies that designate recurrent stroke as the outcome, while incorporating genotype and various relevant clinical factors as predictors, are warranted to strengthen the innovative role of CYP2C19 genotyping in guiding personalised secondary stroke prevention.

Unraveling the Role of Mitochondrial Oxidative Phosphorylation in Cancer: Insights from *Caenorhabditis elegans* (*C. elegans*) and Human Cell Models.

Nur Izzah BUNGSU, Mas Rina WATI, Mark PETALCORIN.
PAPRSB Institute of Health Sciences & BNSRC, PJSC, JPMC, Brunei Darussalam.

Introduction: Metabolic reprogramming is a critical characteristic of cancer, yet the precise mechanisms underlying this phenomenon remain unclear. Mitochondrial oxidative phosphorylation (OXPHOS) dysfunction has emerged as a potential contributor, forcing cancer cells to use alternative metabolic pathways, such as substrate-level phosphorylation (SLP) via glycolysis (Warburg effect), to meet heightened energy and biosynthetic demands. This study seeks to uncover molecular strategies that cancer cells use to sustain their growth and survival.

Materials and Methods: A dual model system was used: nematode *C. elegans* and human cancer cell lines to understand metabolic adaptation and mitochondrial OXPHOS impairment.

Results: In vivo, pharmacological inhibition of the OXPHOS impaired reproductive performance, and the worms compensated by shifting from OXPHOS to SLP. Glucose supplementation provided transient benefits but failed to sustain reproductive capacity, suggesting engagement of additional alternative pathways. In contrast, the in vitro models presented a more complex picture. Cancer cell lines demonstrated greater sensitivity to glycolysis inhibition compared to OXPHOS blockade, indicating glycolytic dependency. However, variability in response to OXPHOS inhibition, potentially influenced by cell type or culture conditions, highlighted the complexity of defining a uniform metabolic phenotype in vitro.

Conclusion: This divergence highlights a key issue in studying cancer metabolism: the in vivo system clearly demonstrates a metabolic shift under mitochondrial stress, whereas in vitro models reveal how environmental and cellular context modulate the response. Collectively, our findings emphasise the central role of cellular energy balance in maintaining cellular viability and reveal that impaired OXPHOS

triggers a shift towards alternative energy pathways such as SLP.

When the Brain Speaks Before the Heart: Cardioembolic Stroke from Atrial Myxoma.

SU Su Aung & JESSIE Talimay Colacion.
Brunei Neuroscience, Stroke and Rehabilitation Centre, PJSC, JPMC, Brunei Darussalam.

Introduction: Atrial myxomas are rare benign cardiac tumors but can be a devastating cause of ischaemic stroke through embolisation. Often silent until they cause a neurological catastrophe, myxomas may first present to neurologists, not cardiologists. This case series describes three patients in whom acute ischemic stroke was the first clinical manifestation of a previously undiagnosed left atrial myxoma.

Case reports: We present 3 patients (a 44-year-old male, 57-year-old male and 65-year-old female) who had sudden-onset right-sided weakness and brain MRI which showed embolic features. All did not have previous history of cardiac disease nor had cardiac murmur, atrial fibrillation and carotid disease on evaluation. The transthoracic echocardiograms (TTE), done as part of the stroke work-up, revealed mobile left atrial hyperechoic masses suggestive of cardiac myxoma. The first 2 patients had successful surgical resections with no post-operative complications, stroke recurrence nor cardiac mass recurrence on follow-up TTE. Both had benign atrial myxoma on histopathology. At 3 months, the 44-year-old remained functionally dependent (mRS 5), while the 57-year-old had full recovery (mRS 0). The last patient is currently on a NOAC while awaiting surgical resection but has since functionally fully recovered (mRS 0).

Discussion and conclusion: These cases underscore how ischemic stroke may precede any cardiac signs in patients with myxoma. The absence of classical risk factors, along with embolic infarct patterns, should prompt early echocardiographic evaluation, even in older adults. Cardiac myxoma must remain a differential diagnosis in ischemic strokes particularly in young adults or embolic strokes. Timely cardiac imaging and surgical intervention can lead to excellent outcomes.

Young onset Stroke in Brunei Neuroscience, Stroke and Rehabilitation Centre: A highlight on Atypical and Under-recognised Aetiologies.

YE Thwin, NURSHEBA Abqarah binti Arifin, ABUBAKAR Danjuma Abdullahi, JESSIE Talimay Colacion
Brunei Neuroscience, Stroke and Rehabilitation Centre, PJSC, JPMC, Brunei Darussalam.

Introduction: Stroke in young adults, though less common than in older populations, causes substantial disability and societal burden; beyond classic risks such as hypertension and diabetes, atypical mechanisms including arterial dissection, vasculitis,

moyamoya, and prothrombotic states are increasingly recognized, particularly in Asian settings. Evidence also links substance use with young-onset stroke, warranting routine toxicology screening in this group. Data from Southeast Asia, including Brunei Darussalam, remain limited. The objective of the study was to describe demographics, stroke subtypes, risk factors, investigations, and 12-month outcomes of young-onset stroke in BNSRC, highlighting uncommon aetiologies; the study offers a near-national overview.

Materials and Methods: A retrospective review included patients aged 18–45 admitted to BNSRC from 1 January 2020 to 31 December 2021, with diagnoses confirmed by neuroimaging and data extracted from BruHIMS; advanced testing (thrombophilia and vasculitis panels, vascular imaging, CSF analysis) was performed where clinically indicated; subtyping followed TOAST criteria.

Results: Of 850 admissions, 125 (14.7%) involved young adults; 110 had confirmed stroke (median age 41; 70 male), and 15 had TIA. Ischaemic stroke predominated (79.1%); TOAST distribution: cardioembolic 25, small-vessel 24, large-artery 15, cryptogenic 15. Eight had atypical aetiologies: dissection 2, vasculitis 3, moyamoya 1, antiphospholipid syndrome 1, protein-S deficiency 1 (5 female, 3 male), reflecting patterns reported in young stroke cohorts. Toxicology was positive in 25; CSF abnormalities in 8. Risk factors were frequent: hypertension 78.2%, smoking 65.7%, diabetes (44.5%), dyslipidaemia (42.9%). At 12 months, mortality was (10.9%), with no deaths among atypical cases; four recurrences occurred.

Conclusion: Conventional risks predominate, but a meaningful subset exhibits uncommon mechanisms; structured diagnostic pathways and substance screening may improve aetiological yield and tailored prevention in young-onset stroke.

Clinical Findings of Iron Overload and Cardiac Magnetic Resonance Imaging (MRI) Among Transfusion-Dependent Thalassaemia Patients in Brunei Darussalam from 2013 To 2023.

SULWYN Fong Xue Wen¹, MEI-ANN Lim¹, Pengiran Hajah ROSERAHAYU Pengiran Haji Idros², MONCY Jacob Oommen³, SOFIAN bin Johar³

¹ PAPRSB Institute of Health Sciences, Universiti Brunei Darussalam, Jalan Tungku Link, Gadong BE1410

² Haematology Unit, RIPAS Hospital, Jalan Putera Al-Muhtadee Billah, Bandar Seri Begawan BA1712

³ Cardiac Centre, RIPAS Hospital, Jalan Putera Al-Muhtadee Billah, Bandar Seri Begawan BA1712

Introduction: Regular blood transfusions enable progressive iron accumulation, which can lead to adverse consequences.

This study aimed to identify the clinical complications among transfusion-dependent thalassaemia (TDT) patients in Brunei and to determine the association between cardiac MRI T2* measurements and the risk of cardiac complications.

Materials and Methods: This retrospective-observational study covered a ten-year period from 2013 to 2023 on all TDT patients under management in the Adult Haematology Unit in RIPAS Hospital. Low, medium and high iron overloads were categorised by cardiac MRI T2* >20 milliseconds (ms), 10-20 ms, and <10 ms, respectively.

Results: There were 135 TDT patients in Brunei (median number of blood transfusions per patient per year = 11). 95% underwent single or repeated cardiac MRI. Of them, 20% had high iron overload at their latest MRI. There were 387 recorded complications, including cardiac complications secondary to iron overload such as arrhythmias (4.7%), heart failure (3.1%) and pulmonary hypertension (2.6%). Multivariate analysis showed that longer cardiac MRI T2* measurement was associated with lower odds of death (OR = 0.87, p <0.05) and cardiac complications (OR = 0.90, p <0.05). Patients with high cardiac iron overload had higher risk of cardiac complications (OR = 14.60, p <0.0001).

Conclusion: Cardiac MRI T2* is a powerful, non-invasive predictor of adverse outcomes in transfusion-dependent thalassaemia. Majority of patients had relatively preserved cardiac function, indicating good management. Routine use of cardiac MRI enables early identification of high-risk patients and shifts care from reactive treatment of complications to proactive prevention.

DAY 3: SUNDAY 12TH OCTOBER 2025 (13:30-15:30)

Session 5: Public Engagement, Awareness, and Prevention

PRESENTER	TITLE
Siti Nur SYAHIRAH Amnani Binti Haji SUHAIMI	Knowledge, Attitudes, and Practices Towards Healthy Lifestyles Among High School Students
SUHEYLA Binti Haji Suhaili	Assessing Public Awareness and Perceptions Of Colorectal Cancer Marketing Campaign
NURUL RAIHAH SYAZANA SYUKRIAH @ DIANA BINTI ABDUL RAHIM	Facilitators and Barriers on Early Detection of Colorectal Cancer

Knowledge, Attitudes, and Practices Towards Healthy Lifestyles Among High School Students in Brunei: A Cross-Sectional Study.

Syahirah Amnani SUHAIMI, Rusydiah SUDIN, Afiqah Nabihah AHMAD, Norol Ehsan ABDUL HAMID.

Health Promotion Centre Ministry of Health, Brunei Darussalam.

Introduction: Adolescence is a critical stage for shaping lifelong health behaviors. This study assessed the knowledge, attitudes, and practices (KAP) related to healthy lifestyles among high school students, to inform the development of effective, school-based health promotion interventions.

Materials and Methods: A cross-sectional survey was conducted among 341 randomly selected high school students aged 13-17 years in Brunei. Data were collected using a 44-item self-administered questionnaire and analyzed in SPSS, utilizing descriptive statistics, Chi-squared tests, t-tests, and ANOVA to explore gender and grade differences.

Results: Of the respondents, 63.6% were male. Knowledge scores were satisfactory (mean 8.89, SD = 2.20), but weaker in oral health; 33.1% never used dental floss and 74.8% were unaware of when to visit a dentist. Older students showed significantly higher knowledge (p=0.002) and males scored higher in attitudes and practices than females (attitude: 15.35 vs. 13.42, p=0.003; practice: 39.13 vs. 36.00, p<0.001). Attitudes were generally poor (mean 14.64, SD = 5.77), with many uncertainties about healthy eating and exercise. Practice scores were more favorable (mean 38.01, SD 6.80), however 70% still exceeded two hours of daily screen time. Nutritional behaviors were concerning, with over 25% frequently consuming sugary drinks and snacks. About 60% felt school supported activity levels, and 82.6% wanted help from health professionals for weight management.

Conclusion: Baseline findings suggest moderate health awareness with gaps in nutrition practices, oral health and

physical activity. Targeted, school-based interventions are needed to reinforce positive attitudes and sustainable health practices in this population.

Assessing Public Awareness and Perceptions Of Colorectal Cancer Marketing Campaign In Brunei Darussalam

SUHEYLA Suhaili, NORZAWANI Ishak, NORHAYATI Kassim, Siti ZUHRINI Kahan.

Brunei Centre for Disease Control and Prevention, Ministry of Health, Brunei Darussalam.

Introduction: Colorectal cancer (CRC) is a major public health issue and awareness campaigns are essential to improve knowledge and encourage early detection. The Ministry of Health in Brunei Darussalam implemented a three-month CRC awareness campaign (April–June 2025) through radio advertisements, TV and radio interviews, infographics and an educational video disseminated via social media, BruHealth app and e-mails to government employees. This study evaluated its impact on public awareness and perceptions.

Materials and Methods: Participants were recruited using convenience sampling across Brunei-Muara, Tutong, Belait and Temburong at high-traffic locations such as malls and markets, with questionnaires also distributed via government e-mail. Data was collected through an online survey accessed by QR code during July 2025. The survey assessed exposure to campaign materials and preferred communication platforms as well as awareness and knowledge of CRC adapted from the UK Cancer Awareness Measure. Responses were analysed descriptively, with Pearson chi-square tests used to compare exposure with knowledge.

Results: A total of 323 respondents participated. Most were female (68.1%), aged 31–40 years (37.5%) and from Brunei-Muara (71.2%). Nearly half (48.9%) reported exposure to the campaign, most frequently via the BruHealth app (15.9%), social media (14.4%) and radio (14.3%). Instagram (14.7%), the BruHealth

app (12.4%) and radio (12.1%) were perceived as the most helpful platforms for future campaigns. Exposure was significantly associated with knowledge of CRC signs and symptoms ($\chi^2 (4, N = 323) = 14.75, p = 0.005$) and risk factors ($\chi^2 (4, N = 323) = 22.99, p < 0.001$).

Conclusion: Exposure to the campaign was significantly associated with improved CRC knowledge. Findings will inform future health promotion strategies, optimize communication platforms and strengthen public engagement for early detection.

Tables

Table 1: Demographic characteristics of the respondents (n=323)

Demographic	n	%
Age Group		
18-30 years	55	17.0
31-40 years	121	37.5
41-50 years	94	29.1
51-60 years	45	13.9
above 60 years old	8	2.5
Gender		
Female	220	68.1
Male	103	31.9
Districts		
Brunei-Muara	230	71.2
Tutong	53	16.4
Belait	29	9.0
Temburong	11	3.4

Figure 1: Number of responses by source of CRC campaign exposure

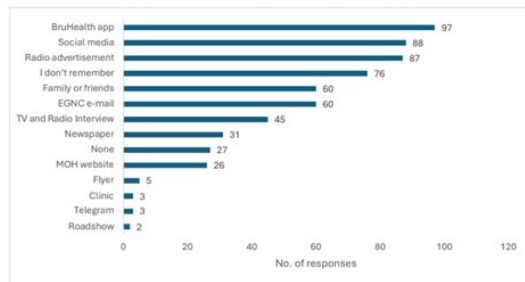


Figure 2: Number of responses by preferred communication platform

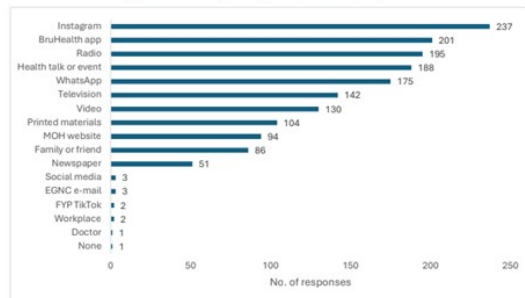


Table 2: Comparison between exposure to the CRC awareness campaign and knowledge of CRC signs and symptoms

Heard of CRC awareness campaign	Poor knowledge (0-3)	Moderate knowledge (4-6)	Good knowledge (7-9)	χ^2 statistic (df)	p-value
No	44 (40)	36 (32.7)	30 (27.2)	14.75 (4)	0.005
Not sure	27 (49)	15 (27.2)	13 (23.6)		
Yes	38 (24)	60 (38.0)	60 (38.0)		

Table 3: Comparison between exposure to the CRC awareness campaign and knowledge of CRC risk factors

Heard of CRC awareness campaign	Poor knowledge (0-3)	Moderate knowledge (4-6)	Good knowledge (7-10)	χ^2 statistic (df)	p-value
No	57 (51.8)	36 (32.7)	17 (15.5)	22.99 (4)	< 0.001
Not sure	29 (52.7)	19 (34.5)	7 (12.7)		
Yes	49 (31.0)	53 (33.5)	56 (35.4)		

Facilitators And Barriers on Early Detection of Colorectal Cancer in Brunei Darussalam: A Qualitative Study.

Nurin NATASHA Khairina binti Haji Hassan, Nur QASDINA Binti Awang Jobli, Nurul AZZYATI binti Noor Mohammad Azreen, Nurul Raihah Syazana Syukriah @ DIANA binti Abdul Rahim, RABIATUL Aniyah Binti Haji Mahli, Siti Nur HIDAYATI Binti Haji Raddin, Siti Nur SYAKIRAH Binti Haji Ismail, Syazwan HAQIM Bin Shahrizal, VICKY Yen Gia Hui, WAN Mohammad Fendi Bin Haji Zain, Dk Siti NAJIBAH Binti Pg Hamid. JPMC College Health Science, Brunei Darussalam.

Introduction: Colorectal cancer (CRC) incidence is steadily rising worldwide, ranking third in cancer incidence and second in cancer-related mortality. Early detection through screening is essential to reduce morbidity and mortality by enabling prompt diagnosis and preventive measures. This study aims to explore the barriers and facilitators influencing participation in CRC screening among older adults in Brunei Darussalam.

Materials and Methods: A descriptive qualitative design was employed, involving semi-structured face-to-face interviews with 80 respondents aged 50–75 years from all four districts. Data was collected using a professionally validated interview questionnaire, recorded with informed consent, and analyzed thematically using Colaizzi’s Method of Data Analysis.

Results: Findings revealed multiple barriers hindering screening participation: 1. Structural and logistic barriers included transportation limitations, time constraints, competing health priorities, and lack of family support. 2. Emotional barriers encompassed fear of diagnosis, embarrassment with perineal procedures, and personal health beliefs resulting in negligence. 3. Knowledge-related barriers included limited awareness of CRC and ineffective use of media, while behavioral barriers showed reactive health-seeking only after symptoms appeared. Conversely, facilitators were also identified: 1. Information dissemination through mass media, healthcare providers, and community-based activities. 2. Motivational factors comprise self-health motivation, proactive attitudes, and personal exposure to CRC among family or peers. 3. Opportunistic screening during health check-ups and health promotion through lifestyle practices also encouraged uptake.

Conclusion: The study highlights the urgent need to strengthen health education, expand community engagement and enhance screening accessibility. Addressing barriers and amplifying facilitators is crucial to increasing CRC screening participation in Brunei Darussalam.



DAY 1: FRIDAY 10TH OCTOBER 2025 (MUSYAWARAH HALL)

Number	PRESENTER	TITLE	POSTER NO.
1	Tan JEF WAYNE	More Than Just Hypertension - Unmasking Primary Aldosteronism After 20 Years: A Case Report	3
2	HEIN HTET ZAW	Medication induced polyneuropathy	5
3	Abdul MUIZ Hj Zulaidi	Pulmonary Veno-Occlusive Disease (PVOD): A Case Report	6
4	MARIA IRIS SALVADOR	Chronic Kidney Disease Patient Education: Imperative Role As A Nurse	7
5	Karl Andrew Garcia ANDALIS	Spot the Signs: How to Detect Oral and Head & Neck Problems Early	8
6	Anita DAVID	Uterine Leiomyosarcoma – MRI Findings to Indicate Sarcoma in a Fibroid; a Case Report	9
7	MERLIN kariyattil Boban	The Spectrum of Spinal Ependymoma: 2 Cases & A Literature Review	10
8	Tiong Jeng LIM	Vertebral Fracture in Lactating Female: A Case Report	13
9	THU TA	Case Report - Central Diabetes Insipidus Following Steroid Replacement for Hypoadrenalism in Pembrolizumab-Induced Hypophysitis	14
10	Hein Minn Tun @ Salman	Artificial Intelligence (AI)-Based Tools in the Diagnosis and Management of Prostate Cancer: A Systematic Review and Meta-Analysis	15
11	Dk Siti Nur Saidatul Natasha PG HJ ISMAIL	Program Untaian Kasih: An Occupational Therapy-Led Dementia Support Group Service In Brunei	18
12	Tan JEF WAYNE	A Clinical Audit Of Factors Influencing Time Of Resolution Of Diabetic Ketoacidosis In Adult Patients	20
13	HEIN HTET ZAW	Young Stroke Rehabilitation	21
14	ROSHITH HARISH CHEKKATTU	Charcot Arthropathy Secondary to Syringomyelia	22
15	Roaihda GANARUL MUSTALA	Migraine Self-Management Workshop At JPMC: A Feasibility Evaluation	23
16	Su Su Aung	Diagnostic Challenge of LGI1 Encephalitis with Frequent Seizure, Cognitive Impairment and Electrolyte Abnormality	24
17	KHANT ZAW	Adolescent Large MCA Stroke Following Mycoplasma Pneumoniae Infection With Transient Lupus Anticoagulant	25
18	DAWN Antony	Forget Me Not - DAVF As A Treatable Cause Of Dementia	26
19	MOHAMAD ADDIN AZHAN Bin A Manap	Young AVM Recovery: A Case Study on the Role of Botulinum Toxin in Post-AVM Spasticity and Functional Recovery	27
20	FATIN Nurhayati Binti Haji MEJENIE	Stress, Strain and Recovery : Exploring Primary Cognitive Appraisal, Strain Outcomes, And The Moderating Role Of Psychological Detachment.	28



1: More Than Just Hypertension - Unmasking Primary Aldosteronism After 20 Years: A Case Report.

ALVINA Anais Anak Adrian Susin & Tan JEF WAYNE.

Department of Medicine, Hospital Serian, Sarawak, Malaysia.

Introduction: Primary aldosteronism (PA) is common but often underdiagnosed cause of secondary hypertension, accounting for 5–15% of cases. It should be considered in patients with resistant hypertension, spontaneous or diuretic-induced hypokalemia, early-onset hypertension, adrenal incidentalomas, or a family history of PA. Early diagnosis through screening, confirmatory testing, and subtype differentiation enables targeted treatment that improves blood pressure control and reduces cardiovascular risk.

Case Report: Madam P, a 60-year-old woman with a history of hypertension since age 41, dyslipidemia, and type 2 diabetes, presented with symptomatic hypokalemia and progressive bilateral lower limb weakness. She also reported heart failure symptoms, including reduced effort tolerance and orthopnea. Examination revealed bilateral leg swelling and bibasal lung crepitations. Despite adherence to five anti-hypertensive agents, her blood pressure remained poorly controlled. Recurrent hypokalemia documented in primary care raised suspicion of secondary causes of hypertension. Investigations showed severe hypokalemia (1.79 mmol/L), metabolic alkalosis, and a low transtubular potassium gradient (TTKG 1.2), suggesting renal potassium wasting. Her anti-hypertensive regimen was adjusted to reduce interference with hormonal testing, and potassium levels were corrected. Screening revealed an elevated aldosterone-renin ratio (ARR) of 194 (cutoff >35). A confirmatory supine saline suppression test showed an aldosterone level of 434 pmol/L (cutoff <280), confirming the diagnosis of PA. A CT adrenal scan was arranged for subtype classification and further management.

Conclusion: This case highlights the importance of considering PA in patients with resistant hypertension and unexplained hypokalemia to allow timely diagnosis and effective treatment.

2: Medication induced polyneuropathy.

Hein Htet Zaw & Chooi Lynn LEE.

Rehabilitation Medicine Unit, Brunei Neuroscience Stroke and Rehabilitation Centre, Jerudong Park Medical Centre, Brunei Darussalam.

Introduction: Arsenic trioxide (ATO) combined with all-trans retinoic acid (ATRA) is the standard treatment for low-risk acute promyelocytic leukaemia (APL). While neuropa-

thy is a known side effect, it is typically mild and reversible.

Case report: We present a case of a 28-year-old female with prior Hodgkin's lymphoma, diagnosed with APL following pancytopenia and bleeding symptoms. She received induction therapy with ATRA-ATO and achieved morphological remission. Two weeks later, she developed progressive numbness, weakness, hypophonia, and functional decline. Neurological assessment revealed bilateral foot drops, severe distal limb weakness, sensory loss, and absent reflexes. MRI brain/spine and CSF analysis were normal. Nerve conduction studies showed diffuse sensory axonopathy and motor involvement in the lower limbs. A diagnosis of ATO-induced severe sensory and motor polyneuropathy was made. Early and sustained multidisciplinary rehabilitation was initiated, involving physiotherapy, occupational therapy, orthotics, speech and language therapy, psychology, and art therapy. She required two-person assistance for bed mobility and maximum support for personal care. Interventions included range-of-motion and strengthening exercises, robotics, electrical stimulation, functional retraining, energy conservation and carer education. After discharge, outpatient rehabilitation continued. At 3 months, she achieved independent transfers and wheelchair mobility. After 2 years, she walked independently with forearm crutches and AFOs as bilateral foot drop persisted.

Discussion and conclusion: Up to 40% of patients given ATO develop neuropathy, usually mild and resolved after completion of ATO treatment. Severe ATO-induced neuropathy is rare but can cause lasting disability. This case highlights the integral role of early, coordinated multidisciplinary rehabilitation in restoring function and independence in patients with ATO induced profound neurotoxicity.

3: Pulmonary Veno-Occlusive Disease (PVOD): A Case Report.

Hj Zulaidi ABDUL MUIZ & Hj Azahari EZATUL SHIMA.

Division of Respiratory Medicine, Department of Medicine, RIPAS Hospital, Brunei Darussalam.

Introduction: Pulmonary Veno-Occlusive Disease (PVOD) is a subgroup of pulmonary arterial hypertension (PAH) characterised by rapidly progressive fibroproliferative disease primarily affecting the small pulmonary veins with relative sparing of the larger veins. We report a probable case of PVOD in a young man who was admitted under DORM.

Case report: A 26-year-old man presented with 1 week history of dry cough associated with dyspnoea, orthopnoea and PND. He had bilateral crepitations on chest auscultation but otherwise examination was unremarkable. Bloods showed raised troponin, BNP and D-dimer. CTPA ruled out PE and showed diffuse

reticular opacities in the right lung, prominent RV and pulmonary arteries suggestive of PAH, which was further supported by echo findings of dilated RA, reduced RV function and D shaped LV with preserved LV function. He had extensive workups including sputum AFB and cultures, autoimmune and viral serologies which were all negative. Despite treatment with numerous IV antibiotics, Prednisone and IV diuretics, he continued to deteriorate with severe type 1 respiratory failure requiring HFNO in ICU. Serial CXR showed progressive diffuse opacities and CT showed bilateral smooth interlobular septal thickening with patches of ground glass haziness. Bronchoscopy in ICU revealed nodular erythematous patches of both segmental airway mucosa and bronchial washing cytology revealed haemosiderin laden macrophages; commonly found in PVOD. Unfortunately, patient had a cardiac arrest and passed away. Based on clinical, radiological and cytological findings, PVOD is the most likely diagnosis. Right heart catheter studies would have been ideal to confirm the suspected diagnosis.

Conclusion: During the evaluation of patients with pulmonary hypertension, PVOD should be suspected in those with manifestations of PAH who have evidence of pulmonary venous congestion in the absence of left side heart disease.

4: Chronic Kidney Disease Patient Education: Imperative Role as a Nurse.

Maria Iris SALVADOR
Jerudong Park Medical Centre, Brunei Darussalam.

Chronic Kidney Disease (CKD) is a growing global health concern that affects patients physically, emotionally, and socially, significantly reducing quality of life and increasing the healthcare burden. Effective management of CKD requires more than medical treatment; it demands patient education, self-care, and active engagement in health-promoting behaviors. Nurses, as frontline healthcare providers, play an essential and multifaceted role in delivering health education, guiding patients to understand their condition, adhere to prescribed treatments, and adopt lifestyle modifications that can prevent complications and slow disease progression. According to the Borneo Bulletin, Brunei is facing a concerning rise in end-stage kidney disease cases. In 2024 the Brunei Darussalam Dialysis and Kidney Transplant Registry recorded 1,082 individuals with the condition, representing a 6.2% increase from 2023. Over the past three years, an average of 180 patients has died annually from kidney disease. Minister of Health Dato Seri Setia Dr Haji Mohd Isham bin Haji Jaafar highlighted the issue on World Kidney Day (March 13), emphasizing the importance of early detection and prevention. He stressed that CKD is a major global

health threat and urged individuals to adopt healthy lifestyles and manage underlying conditions such as diabetes and high blood pressure.

As a dialysis nurse, I have witnessed firsthand how proper education, and support can transform patients' experiences with CKD. Through guidance, encouragement, and advocacy, I know I can help patients understand their condition, make informed decisions, and actively participate in their care. Nurse-led health education empowers patients, builds confidence and self-reliance, and promotes adherence to treatment and lifestyle modifications. Ultimately, this leads to improved outcomes, enhanced quality of life, and reduced healthcare burden.

This presentation underscores that health education is a cornerstone of CKD management, and through proactive nursing care, we can make a meaningful difference in the lives of patients facing this challenging condition. I believe that an educated patient is an empowered patient.

5: Spot the Signs: How to Detect Oral and Head & Neck Problems Early.

Karl Andrew Garcia ANDALIS
Jerudong Park Medical Centre, Brunei Darussalam.

Non-communicable diseases (NCDs) affecting the oral cavity and head and neck region remain a significant yet often underestimated public health concern. Oral cancers, precancerous lesions, chronic gum disease, neck swelling and other related conditions contribute to high rates of morbidity and mortality worldwide. Early detection is critical, as it not only improves treatment outcomes but also reduces the long-term physical, emotional, and financial burden of disease. Unfortunately, lack of awareness, delayed recognition of symptoms, and lifestyle risk factors continue to hinder timely diagnosis.

This presentation highlights the importance of recognizing the early warning signs of oral and head and neck diseases. Key symptoms include persistent mouth ulcers, non-healing sores, white or red patches in the mouth, and unexplained lumps or swelling. Lifestyle factors such as tobacco and alcohol use, poor oral hygiene, and unbalanced diets are identified as major contributors to disease onset and progression. The session further emphasizes the critical role of nurses in community awareness, health education, and supporting doctors and allied professionals in early screening programs. Since 2018, MFPRSC nurses have actively engaged in Free Cancer Screening for the Mouth and Head & Neck as part of the Centre's early detection and cancer prevention initiative. By equipping the public with knowledge and encouraging proactive health-seeking behaviors, this talk aims to empower individuals and communities to act before problems advance. Ultimately, recognizing the signs early, adopting preventive lifestyles, and seeking timely medical consultation are

the most effective strategies to reduce the burden of oral and neck NCDs.

6: Uterine Leiomyosarcoma – MRI Findings to Indicate Sarcoma in a Fibroid; a Case Report

Anita DAVID, Sunithi Mani, Anuprita Vadaje, Chitra Lydia Suguna Karat
Jerudong Park Medical Centre, Brunei Darussalam

Introduction: Uterine Leiomyosarcoma (uLMS) is the most common leiomyosarcoma with a median age of presentation of 50 years and make up 2-5% of all uterine sarcoma. They are devastating malignancies and have a 50-70% recurrence rate and hematogenous metastases are common. Ultrasound and CT are nonspecific to determine the malignant nature. MRI has a high specificity for determining cellularity (DWI), necrosis (post Gadolinium scans), metastases (hematogenous to liver, lungs, bones).

Case report: We present and highlight the clinical and imaging findings that should raise concern for malignancy in uLM.

Conclusion: We provide a literature review for uLMS diagnosis and management through clinical, MRI and other imaging findings in a post-menopausal lady presenting with bleeding per vagina and pelvic pain.

7: The Spectrum of Spinal Ependymoma: 2 Cases & A Literature Review.

MERLIN K Boban, SUNIL Upadhyaya, DAWN Antony, E Mani SUNITHI, Mannam PAVITHRA
Department of Neurosurgery, PJSC, JPMC, Brunei Darussalam.

Introduction: Ependymoma has varied appearance when occurring in the spinal canal with typical intramedullary nature in spinal ependymoma and extra-medullary nature in myxopapillary variety at the level of the conus/cauda equina. We present two cases from Brunei to elaborate on the clinical presentation, imaging findings and management of these tumors with a short literature review.

Case reports: Case 1: A 34-year-old female presented with progressive limb weakness on the left side of the body, which had been worsening for four months. Magnetic resonance imaging (MRI) revealed an expansile soft tissue mass extending from the medulla to the C6-C7 and Syrinx to the T7. Case 2: A 45-year-old male presented with right ankle weakness that had been present for six months. MRI imaging demonstrated an intramedullary extra-medullary lesion at the T12/L1 level.

Discussion and conclusion: Spinal ependymomas are the second most common intramedullary neoplasm in children and are the most common intramedullary neoplasm in adults.

On imaging, they tend to show calcification and ‘cap’ cysts with oedema with intensely enhancing solid components and surgical excision is possible due to the plane between the tumor and the cord as compared to the lack of it in astrocytoma. Our patient had a cervical cord tumor extending to the medulla, a rare site of occurrence; post op developed respiratory failure requiring ventilation and she succumbed to multiple infections later. Myxopapillary ependymoma typically present at the conus and have now been reassigned as grade 2 tumours in the 2021 classification due to the possibility to recur. On imaging, they have a solid appearance with intense enhancement and typical intradural extra-medullary location. They can be completely excised in this location. Our patient had a typical tumour, and this has been excised. We present the presentation, imaging and management spectrum of ependymomas of the spinal canal to emphasise on the

8: Vertebral Fracture in Lactating Female: A Case Report.

Tiong Jeng LIM & Dawn ANTONY.
Department of Neurosurgery, PJSC, JPMC, Brunei Darussalam.

Introduction: During pregnancy and lactation, maternal adaptations to fulfil both mother and foetal needs are of normal occurrence. One of these changes involves maternal skeletal system and change in calcium metabolism. During lactation, the ‘brain-breast-bone’ circuit leads to increase bone resorption in order to meet the demands of neonatal feeds. This can lead to decrease in maternal bone mineral density (BMD), predisposing them to pregnancy and lactation associated osteoporosis (PLO) or skeletal fracture from a trivial mechanism. PLO is a rare condition that can present as non-traumatic fragility fracture, occurring for the first time during pregnancy or at postpartum period while breastfeeding.

Case report: This case involves a 31-years old, 6- weeks postpartum lactating female who first presented to Neurosurgery with acute onset isolated low back pain following a mechanical fall from standing height. The pain was located at upper lumbar region and aggravated by walking. On examination, L1 spine tenderness elicited with no neurological deficit. Initial X-ray revealed a L1 compressed fracture. Further detailed imaging study with CT showed comminuted fracture of L1 vertebral body with posterior fragment pressing on the spinal cord. Serum vitamin D level was found to be low (54 nmol/L) with normal serum calcium level. The patient was started on oral calcium and Vitamin D supplements. In view of instability, the patient underwent pedicle screw fixation and bone cement augmentation. On further follow up review, patient’s pain symptom completely resolved and is ambulating unaided.

Conclusion: Thus, it is important to increase awareness of calcium/ vitamin D supplementation during demanding period.

9: Case Report - Central Diabetes Insipidus Following Steroid Replacement for Hypoadrenalism in Pembrolizumab-Induced Hypophysitis.

THU Ta, SAN San Htay, SU Su San, MYAT Koe San, LU Shir Kiong.
The Brunei Cancer Centre, PJSC, JPMC, Brunei Darussalam.

Introduction: Immune checkpoint inhibitors (ICIs), such as pembrolizumab, have revolutionized cancer therapy but are associated with immune-related adverse events (irAEs), including endocrinopathies.

Case report: We present a case of a 68-year-old woman with lung adenocarcinoma treated with pemetrexed, carboplatin, and pembrolizumab. After five cycles, she was admitted with symptoms suggestive of adrenal insufficiency and hyponatremia. Laboratory investigations revealed low serum sodium, low cortisol, and suppressed TSH with normal free thyroid hormones. MRI brain confirmed hypophysitis. Hydrocortisone and saline replacement led to symptomatic improvement. However, on day 3 of admission, she developed acute hypernatremia (serum sodium 164 mmol/L), with minimal improvement despite fluid adjustments. Paired serum and urine osmolality testing, followed by desmopressin challenge, confirmed central diabetes insipidus (CDI). Desmopressin therapy later normalised her sodium levels.

Discussion and conclusion: This case highlights a rare but critical phenomenon: coexisting hypoadrenalism and CDI in ICI-induced hypophysitis. The initial hyponatremia masked underlying CDI, which became unopposed after steroid replacement, leading to severe hypernatremia. Clinicians should maintain high suspicion for CDI in patients with ICI-induced hypophysitis, especially when sodium levels fluctuate post-steroid initiation. Early recognition and appropriate desmopressin therapy are essential to prevent complications [6]. This case underscores the importance of dynamic endocrine evaluation in patients receiving ICIs and contributes to the growing literature on complex irAEs.

Table: Summary of Laboratory Investigations

Day	Serum Sodium (mmol/L)	Serum Osmolality (mOsm/kg)	Urine Osmolality (mOsm/kg)
Admission	125 L	265 L	114
Day 3	164 H	337 H	170
Day 5	159 H	331 H	305
Pre-Desmopressin Challenge	149 H	299	475
Post-Desmopressin Challenge	147 H	305	569
Day 7	139	298	568

10: Artificial Intelligence (AI)-Based Tools in the Diagnosis and Management of Prostate Cancer: A Systematic Review and Meta-Analysis.

HEIN MINN TUN, Lin Naing, Owais Ahmed Malik, Hanif Abdul Rahman
Institute of Health Science, PAPRSB, Universiti Brunei Darussalam

Introduction: Despite its promises of artificial intelligence (AI) in the field of prostate cancer, there is a lack of comprehensive synthesis and knowledge regarding the efficacy of the current AI-based prostate cancer tools. This study aims to identify, evaluate and synthesise the existing evidence on AI-based tools developed for the diagnosis, prognosis, and management of prostate cancer.

Materials and Methods: The systematic review of published studies from January 2020 to April 2025 that were retrieved from PubMed, Scopus, and Clinical Trials.gov, focusing on the AI-based tools that are used in the diagnosis and management of prostate cancer care. Two independent reviewers utilised follow PRISMA guidelines and the QUADAS-AI tools to assess bias, ensuring a rigorous and systematic review process.

Results: 43 studies were included, mostly retrospective and diagnostic-focused (n=29), with deep learning being the most common AI model (49%). Meta-analysis of 34 studies showed strong pooled AUC performance in the random effect model (0.834; 95% CI: 0.801–0.865), and five studies reported pooled hazard ratios of 1.491(95%CI: 1.242 - 1.740). Subgroup analysis and meta-regression revealed that diagnostic tools and deep learning models performed best, with no single study influencing results in the sensitivity analysis. Seven narrative studies highlighted the emerging LLM role, and quality assessment revealed a low risk of bias, though concerns remained on the applicability of tools due to the validation method.

Conclusion: This review highlights the promising AI tool performance for prostate cancer diagnosis, prognosis, and management, while raising concerns on real-world applicability. Future studies should emphasize equity and user-centered evaluations.

11: Program Untaian Kasih: An Occupational Therapy-Led Dementia Support Group Service in Brunei.

Dk Siti Nur Saidatul Natasha Pg Haji ISMAIL, Nurul Bazilah Haji ALI, Hjh Raihana Haji YUSSOF
RIPAS Hospital, Brunei Darussalam.

Introduction: Brunei Darussalam is experiencing a steadily growing ageing population, with a projected increase in the number of older adults from 31,300 in 2023 to 54,700 by 2040. Dementia, closely associated with ageing, poses significant challenges not only for those affected but also for families and caregivers. In response, Program Untaian Kasih was developed to provide structured, ongoing, non-clinical support in the community. This initiative aims to enhance the quality of life for individuals with dementia, empower caregivers through education, and create a supportive environment to reduce isolation and caregiver burden.

Materials and Methods: Program Untaian Kasih was launched in November 2024 as an expansion of occupational therapy services at RIPAS Hospital. Sessions are conducted once a month,

primarily at Pusat Amal CeraH Sejahtera (PACS), with flexibility to use community venues depending on activity. Each session includes an introduction, concurrent activities for patients and caregivers, and a wrap-up. Therapeutic activities for patients include sensory stimulation, physical exercises, and cognitive engagement, while caregivers participate in education sessions, discussions, and peer support.

Results/Activities to Date: To date, activities have successfully engaged patients and families in therapeutic exercises, creative arts, gardening, and caregiver education. Feedback suggests improved social interaction, reduced caregiver isolation, and enhanced caregiver confidence in dementia management.

Conclusion/Future Directions: Program Untaian Kasih demonstrates the potential of an OT-led, community-based dementia support model to complement existing healthcare services in Brunei. Future directions include outcome evaluation, wider family engagement, intergenerational activities, and replication across districts.

12: A Clinical Audit of Factors Influencing Time of Resolution of Diabetic Ketoacidosis in Adult Patients.

Tan Jef Wayne¹, Shakilone Tharmaseelan², Anantharaju A/L Ramachandaran¹, Ong Yee Ching¹, Hamsa Laxmee A/P Ramakrishnan¹
¹Department of Medicine, Hospital Serian, Sarawak
²Department of Medicine, Sarawak General Hospital

Introduction: Diabetic ketoacidosis (DKA) is an acute, serious life-threatening complication of diabetes that imposes a considerable burden on healthcare system. Despite advances in insulin therapy and supportive care, outcomes remain variable, particularly in resource-limited settings. While international data identify clinical and biochemical predictors of recovery, evidence from Malaysian hospitals is limited. The aim of this study was to evaluate factors influencing the duration of DKA resolution among adult patients in district hospital settings.

Materials and Methods: Retrospective audit was conducted on adult patients admitted to Hospital Serian in 2024 coded with a diagnosis of DKA. The primary outcome is the time of resolution of DKA. This was analyzed for associations with admission laboratory values, precipitating factors and clinical characteristics.

Results: Twenty patients met the biochemical criteria for DKA; median age was 45 years (IQR 33–59), with 55% female. The vast majority (95%) had type 2 diabetes. The most common precipitant was defaulted/missed medications (40%) followed by infection. Median length of stay was 5 days (IQR 4–6); median time to DKA resolution was 13.5 hours (IQR 7–19). At presentation, median glucose was 26.2

mmol/L (IQR 20.6–29.9), pH 7.16 (IQR 7.06–7.28), bicarbonate 8.1mmol/L (IQR 6.4–13.2), and potassium 4.96 mmol/L (IQR 4.23–5.42).

Conclusion: Lower admission pH and bicarbonate levels are independent predictors of slower time to resolution of DKA. This may help distinguish patients with DKA using biochemical markers to determine those requiring closer monitoring and predict LOS. Improved medication adherence and infection control could help reduce DKA admissions.

13: Young Stroke Recovery: A Case Study in Comprehensive Rehabilitation After Hemorrhagic Stroke.

Hein HZ, Lee CL, Ho JHY
Department of Rehabilitation Medicine, Brunei Neuroscience Stroke and Rehabilitation
Centre, Pantai Jerudong Specialist Centre, Brunei Darussalam

Introduction: Stroke is a challenging non communicable disease that causes significant disability in the community. Comprehensive care is essential for good outcomes in stroke survivors.

Case Report: We present the case of a 37-year-old male security guard with hypertension and hyperlipidemia who developed acute severe right-sided weakness, dysarthria, and dysphagia. Imaging confirmed a left basal ganglia hemorrhage, managed conservatively. He required maximum assistance for personal activities of daily living (pADL), moderate assistance for bed mobility, nasogastric feeding, diapers for bladder and bowel management and maximal assistance for transfers. A multidisciplinary rehabilitation program was initiated early, involving medical, nursing, physiotherapy, occupational therapy, and speech and language therapy. Robotic therapy (Armeo for upper limb, Lokomat for lower limb) was incorporated to enhance motor recovery. After four weeks of inpatient rehabilitation, he achieved minimal dependence in pADL and ambulated with a four-point stick under supervision. His Modified Barthel Index (MBI) improved to 73. His swallowing function recovered, and his verbal communication was comprehensible. Continued outpatient therapy led to full independence (MBI 100) within two weeks post-discharge. He resumed light-duty work five months post stroke and at one year, walked unaided, demonstrated fluent verbal communication and drove a non-modified car.

Conclusion: This case highlights the transformative impact of early and sustained rehabilitation, including advanced technologies in managing stroke. It underscores the potential for good recovery and reintegration into society, even after severe neurological deficits, reinforcing the importance of accessible rehabilitation services in NCD care strategies.

14: Charcot Arthropathy Secondary to Syringomyelia.

Roshith Harish Chekkattu, Dawn Antony, Sunithi Mani
Jerudong Park Medical Centre, PJSC, Brunei Darussalam.

Introduction: Charcot arthropathy or Charcot joint or neuro-pathic joint – is a progressive condition of the musculoskeletal system, characterized by joint dislocations, pathologic fractures and debilitating deformities. Charcot arthropathy caused by syringomyelia and Chiari malformation are not common.

Case Report: 52-year-old female p/w a progressive painless swelling and deformity of the left elbow for 2 months. There was wasting of thenar eminence on the left hand with reduced temperature sensation of both hands, reduced joint space, per-articular soft tissue swelling and erosion of lateral condyle of left humerus, fracture left ulnar coronoid process with displaced fracture segment. MRI spine with cervico-medullary junction showed Type 0 Chiari malformation with long segment syringomyelia from C2 to thoracic spinal cord (**Figure**). She underwent foramen magnum decompression.

Discussion and conclusion: Any condition that can cause sensory or an autonomic neuropathy can lead to a Charcot joint. Etiological factors including long standing DM, syphilis, chronic alcoholism, leprosy, meningomyelocele, spinal cord injury, syringomyelia, dialysis. DM is the most common cause of Charcot arthropathy. The need to distinguish the Charcot arthropathy from other joint disorders is crucial. Patients with joint disorders with progressive worsening and neurosensory loss, Charcot arthropathy should be a diagnosis of exclusion. An early stage of this is caused by syringomyelia & Chiari malformation may be diagnosed by early clinical and radiological examination. Patients with joint arthropathy and neurosensory loss with an insignificant medical background, should exclude Charcot arthropathy and causes. Screening MRI spine with cervico-medullary junction should do, and early treatment is warranted if there is any evidence of Chiari malformation with syringomyelia.



Figure

15: Migraine Self-Management Workshop At JPMC: A Feasibility Evaluation.

Roaihda GANARUL MUSTALA, Normashadinah SAID, Suzana HAJI JOHARA, Rosimah SIDEK, Yvonne Keen Lyn LEE, DPg Zawatilamal Bte PG HJ ISMAIL, Wan Tian LIM, Saimah MOHAMAD SAID, Dayangku Siti Nur Ashikin PENGIRAN TENGAH.
Jerudong Park Medical Centre, PJSC, Brunei Darussalam.

Introduction: Migraine and chronic headaches affect approximately 14% of adults globally, significantly impairing workplace productivity yet often remaining under-recognised and poorly managed. A 2024 internal survey at Jerudong Park Medical Centre (JPMC) revealed self-reported chronic headache prevalence of 11.7% among clinical staff and 14.6% among non-clinical staff, with 14.1% reporting moderate to severe daily life impact.

Materials and Methods: Evidence from systematic reviews supports the effectiveness of non-pharmacological educational and psychological self-management interventions in reducing headache-related disability, pain intensity, and mood disturbances. In response, the JPMC Migraine Wellness Initiative developed a 1.5-hour workshop incorporating migraine education, posture and physical techniques, dietary guidance, lymphatic massage, and cognitive behavioural strategies. The HALT-30 Index (Headache-Attributed Lost Time over 30 days) was administered pre-workshop to assess headache burden.

Results: Of 20 attendees, 11 completed HALT-30: nine reported minimal burden, one mild, and one moderate. Notably, some participants attended for general education despite not experiencing migraines.

Conclusion: This preliminary evaluation suggests that such workshops are feasible and potentially beneficial in workplace settings. Literature highlights that group-based delivery, mindfulness, and cognitive behavioural components enhance effectiveness. Future plans include refining content, expanding participation, and using HALT-30 for longitudinal impact assessment. Barriers such as limited employer support, inadequate rest areas, and stigma surrounding migraine as a legitimate health issue warrant further investigation. Addressing these factors is essential for sustainable workplace-based migraine interventions.

16: Diagnostic Challenge of LGI1 Encephalitis with Frequent Seizure, Cognitive Impairment and Electrolyte Abnormality.

SU Su Aung, Chan Guan CHOON, Dayangku Siti NURASHIKIN Pengiran Tengah
The Brunei Neuroscience and Rehabilitation Centre (BNSRC), PJSC, Brunei Darussalam.

Introduction: Autoimmune encephalitis represents a diagnostic challenge due to its broad clinical spectrum and overlapping features with infectious and paraneoplastic syndromes. Leucine-rich glioma inactivated 1 (LGI1) encephalitis is associated with

faciobrachial dystonic seizures, cognitive dysfunction, and characteristic MRI and EEG findings. Electrolyte disturbances, particularly hyponatraemia, are also reported.

Case Report: A 43-year-old woman, with no prior comorbidities, presented with generalized tonic-clonic seizures and one month of worsening forgetfulness. Initial blood tests showed hyponatraemia (127 mmol/L) and hypokalaemia (2.5 mmol/L). MRI brain revealed bilateral hippocampal and temporal lobe swelling. EEG demonstrated frequent seizures arising from the centroparietal region with secondary generalization. CSF studies were unremarkable. CT thorax, abdomen and pelvis, as well as PET-CT, identified a rectal wall lesion, though biopsy confirmed a benign solitary ulcer. She was treated with anti-seizure medications, intravenous methylprednisolone, and intravenous immunoglobulin, leading to improvement in seizure frequency and cognition. Subsequent testing detected positive LGII antibodies and mildly elevated GAD65 antibodies. Rituximab therapy was initiated, and after two cycles, she remains seizure-free and has returned to work.

Discussion and conclusion: LGII encephalitis often presents with seizures, memory impairment, hippocampal MRI abnormalities, and hyponatraemia, usually without a paraneoplastic association. Normal CSF and a good response to corticosteroids are typical. Despite immunotherapy, mild residual deficits and relapse are reported in up to one-third of patients. This case illustrates the diagnostic complexity of LGII encephalitis, the relevance of electrolyte disturbances, and the importance of prompt immunotherapy for favorable long-term outcomes.

17: Adolescent Large MCA Stroke Following *Mycoplasma Pneumoniae* Infection with Transient Lupus Anticoagulant.

Khant ZAW, Muralidharan NAIR
The Brunei Neuroscience and Rehabilitation Centre (BNSRC), PJSC, JPMC, Brunei Darussalam.

Introduction: Ischemic stroke in adolescents is rare and often multifactorial, necessitating evaluation for autoimmune, infectious, and non-atherosclerotic causes. *Mycoplasma pneumoniae*, a common respiratory pathogen, has been implicated in central nervous system involvement and thrombotic complications, particularly through immune-mediated mechanisms such as transient coagulopathy.

Case report: A 14-year-old male adolescent presented with sudden-onset expressive aphasia and right hemiplegia. He reported low-grade fever, malaise, and sore throat approximately 10 days before symptom onset. MRI brain revealed large left MCA territory infarct; ASPECTS was 1. Reperfu-

sion therapy was considered but not pursued due to large infarct volume, low ASPECTS, and high risk of hemorrhagic transformation. PCR from a nasopharyngeal swab confirmed *Mycoplasma pneumoniae*. Laboratory investigations showed a positive lupus anticoagulant in the acute phase. Repeat testing was indeterminate. Other autoimmune, cardioembolic, and prothrombotic causes were excluded. He was admitted and managed in ICU. *Mycoplasma* infection was treated appropriately. Despite the infarct size, surgical decompression was not required. Follow-Up: At 90 days, he showed good functional outcome: right lower limb strength was 4/5, upper limb 3/5, independent ambulation and mild expressive dysphasia.

Discussion and conclusion: This case supports a link between *Mycoplasma pneumoniae* and transient lupus anticoagulant positivity, leading to large territorial stroke. Such post-infectious autoimmune responses may mimic antiphospholipid syndrome but lack persistent antibodies or systemic features. Adolescent stroke requires evaluation for uncommon causes, including transient post-infectious coagulopathies. Appropriate identification and timely intervention can prevent misdiagnosis and guide follow-up care.

18: Forget Me Not - DAVF as a Treatable Cause of Dementia.

CAROLINE Shie Siaw Mei, DAWN Antony, ARUN Kumar Gupta.
The Brunei Neuroscience and Rehabilitation Centre (BNSRC), PJSC, JPMC, Brunei Darussalam.

Case report: We present a 57-year-old Malay male with a dural arteriovenous fistula in his cerebellum causing dementia. He presented with occipital headaches associated with dizziness and sudden amnesia. He had an ataxic gait, horizontal nystagmus, and dysdiadochokinesia on the left side. A computed tomography (CT) of his brain was performed which revealed non-communicating hydrocephalus and features of raised intracranial pressure, for which we inserted a right medium-pressure ventriculoperitoneal (VP) shunt, and he improved neurologically. A magnetic resonance imaging (MRI) of his brain showed a dural arteriovenous fistula (DAVF) in the posterior fossa, which was confirmed on digital subtraction angiography (DSA). This was subsequently embolized. He has recovered well, with remarkable improvement in all domains of his cognitive function.

19: Young AVM Recovery: A Case Study on the Role of Botulinum Toxin in Post-AVM Spasticity and Functional Recovery.

MOHAMAD ADDIN AZHAN A Manap, ABANG MUHAMMAD FAHMY Awang Hj Hepnie
The Brunei Neuroscience and Rehabilitation Centre (BNSRC), PJSC, JPMC, Brunei Darussalam.

Introduction: Arteriovenous malformation (AVM) rupture can

result in stroke-like deficits, including weakness and spasticity, which impede rehabilitation and functional recovery. Spasticity contributes to abnormal posturing, pain, and restricted voluntary movement. Botulinum toxin type A (BoNT-A) is an established therapy for focal spasticity, offering temporary muscle relaxation and facilitating rehabilitation.

Case report: We describe 28-year-old army personnel with no prior comorbidities who suffered a posterior fossa hemorrhage with intraventricular extension and acute hydrocephalus, requiring decompression and EVD insertion. Recovery was complicated by prolonged hospitalisation, infections, and severe bilateral lower limb spasticity, necessitating maximal assistance for activities of daily living (ADLs) and mobility. BoNT-A was administered to selected muscles under ultrasound guidance, alongside oral baclofen and structured rehabilitation including stretching, strengthening, and task-specific training. On 30 May 2023, 400U BoNT-A was injected into bilateral hamstrings and the left gastrocnemius; 100U was administered to the left gastrocnemius on 13 December 2023. Initial contractures measured 41° (right knee), 25° (left knee), and 20° left ankle plantarflexion. By September 2023, contractures improved to 20° at both knees and 15° at the left ankle; the right ankle was neutral. By December 2023, further improvements were noted: right knee 15°, left knee 12°, right ankle neutral, with slight regression in the left ankle (20°). The patient achieved independence in most ADLs, could stand and ambulate short distances with a walking aid.

Conclusion: BoNT-A effectively reduced spasticity and contractures, facilitating rehabilitation and functional recovery in a young AVM patient. Early integration of BoNT-A with rehabilitation may enhance neuroplasticity, mobility, and long-term independence.

20: Stress, Strain and Recovery: Exploring Primary Cognitive Appraisal, Strain Outcomes, and the Moderating Role of Psychological Detachment.

Fatin Nurhayati Binti Haji Mejenie.

Sports Medicine and Research Centre, Department of Youth and Sports, Ministry of Culture, Youth and Sport, Brunei Darussalam.

Global development has transformed workplaces that contribute to work stress. Research frequently neglects individual differences in stress appraisal. The transactional model of stress highlights the interaction between individual and environmental factors, indicating that different stress appraisals influence health and personal outcomes. Chronic stress can result in severe health issues, including heart disease and diabetes, as well as behavioral problems like increased alcohol use and absenteeism. Research highlights burnout as a significant stress response in various occupations. Recent studies also examine burnout clinically, suggesting that the origins of chronic stress—whether from work or personal factors—are less important than their effects on biological processes influencing psychological functioning and social behavior. Work is crucial for many, but it's essential for employees to unwind outside of work to prevent negative effects of work demands. Restorative activities aid in recovery, boosting employee performance and organizational effectiveness. Psychological detachment, one of the identified work recovery processes, refers to the process by which individuals mentally disengage from work, extending beyond leaving the physical workplace. This study focuses on individual differences in stress appraisal through primary cognitive appraisal, and the possible moderating role of psychological detachment towards the possible burnout. Results from this cross-sectional study found a negative relationship between challenge appraisal and two dimensions of burnout (personal & work), while hindrance appraisal is a predictor of burnout, as opposed to challenge appraisal. Psychological detachment did not interact to moderate the relationship between primary cognitive appraisal and burnout. Although there are suggestive findings that could indicate other confounding factors.



DAY 2 & 3: Saturday 11TH—Sunday 12TH OCTOBER 2025 (MUSYAWARAH HALL)

	PRESENTER	TITLE	POSTER NO.
1	Hein Minn Tun @ Salman	Integrating Next-Generation Sequencing (NGS) Insights and Survival Analysis in Prostate Cancer in Brunei Darussalam: A Retrospective Cohort Study	29
2	Dr Suprianto Suryono	Use Of NIV in MND Patients in Brunei Darussalam	30
3	NURUL ZAFIRAH Binti Hj Awg Mahli/ Kon Chai Eshyn	Post-Stroke Dementia Screening for Cognitive Impairment in Patients Following a Stroke	31
4	SEIT Mei Chien	Management of Gestational Diabetes Mellitus in Obstetrics and Gynaecology (O&G) Department at RIPAS Hospital, Brunei: A Prospective Audit and Analysis	32
5	SEIT Mei Chien	Evaluation of Patients with Poorly Controlled Type 2 Diabetes Mellitus at a General Practice Surgery in the United Kingdom	33
6	SAN SAN HTAY	Enhancing Patient-Doctor Communication in Cancer Care with Empathy and Clarity: Through a Sense and a Smile . Literature Review Abstract	34
7	Dr. Ahmed G. Mahmoud	An Audit on Management of CKD in Patients with Diabetes According to NICE and Brunei PHC Guidelines.	35
8	Aqsa Kiran	Risk Factors Associated With The Onset Of Type 2 Diabetes In Generation Z In The United Kingdom	36
9	Dr Dk ZAFIRAH Hakimah Pg Sam-sulbahri	Thrombosis And Complications In Polycythemia Vera: A Decade Long Retrospective Study In Brunei Darussalam	37
10	Hnin Thuzar Win	Essential Thrombocythaemia in Brunei Darussalam: A Ten-year Retrospective Observational Study	38
11	HANI Arianty Haji Awang Tengah	A Study On Type 2 Diabetes Mellitus Patients Followed Up in Primary Health Care Centres, Ministry of Health, Brunei Darussalam	39
12	Dr ALICE YONG Moi Ling	Gestational Diabetes Mellitus and Associated Perinatal Complications at a Tertiary Centre in Brunei Darussalam	40
13	Parameswary Subramaniam	Nilotinib-Associated Arterial Thrombosis in Chronic Myeloid Leukemia: A Case Series	41
14	Ummi SUHAIMEI	Machine Learning-Based Risk Prediction for Colorectal Cancer: Towards a Digital Screening Tool for Brunei	42
15	ANG Woan Yean	Breast Cancer Treatment Modalities, Treatment Delays, And Survival In Brunei Darussalam	43
16	Dr Chan Guan Choon	Modified Barthel Index(MBI) as a Tool for Evaluating Post-Thrombolysis Outcomes in Acute Ischemic Stroke(AIS) Patients	44
17	Dr Chan Guan Choon	Stroke Mimics: Getting To The Point With Quick MRI Imaging	45
18	Dr Chan Guan Choon	Magnetic Resonance Susceptibility-Weighted Imaging: Future Management of Hyperacute Cerebral Ischemia	46
19	Dr Nabila DATO DR HJ SERUDIN	Comorbidity Profile of Obstructive Sleep Apnea Patients Requiring Non-Invasive Ventilation in Brunei Darussalam: A Retrospective Review	47
20	Farhana AYUP	Early Onset Endometrial Cancer in Brunei Darussalam and its risk factors	48
21	ADLI Talip	Enhancing and Sustaining Quality in Point-of-Care Glucose Monitoring: A National Evaluation of Point-of-Care Blood Glucose Test in Brunei Darussalam	49

DAY 2 & 3: Saturday 11TH—Sunday 12TH OCTOBER 2025 (MUSYAWARAH HALL)

	PRESENTER	TITLE	POSTER NO.
22	Ak Muhd ARIF Asnawi bin Pg Junaidi	Feasibility Of Implementing the Japan Gerontological Evaluation Study (JAGES) Approach in Brunei Darussalam	50
23	Ye Thwin	Prevalence and Clinical Profiles of Mild Cognitive Impairment and Dementia at a Neuroscience Centre in Brunei Darussalam	51
24	Ye Thwin	Clinical and Demographic Profile of Cryptogenic Stroke Investigations in the Brunei Neuroscience Stroke & Rehabilitation Centre	52
25	Ye Thwin	Benefit of Immunomodulation Therapy in Glutamic Acid Decarboxylase-65 Autoantibody Related Epilepsy	53
26	Nurhalimah BASYIRAH Jamaludin	Investigation on Alternatively Spliced KCNMA1 Transcript Variants As Potential Breast Cancer Biomarkers	55
27	EMMA Munirah @ Salwa Binti Haji Mohamad	Enhancing Patient Workflow and Satisfaction in Warfarin Clinics: Retrospective Study of Point-of-Care INR Testing Versus Laboratory INR and Its Safety Implications	56
28	Su Su Aung	Post-Stroke Seizures in Brunei Neuroscience Stroke and Rehabilitation Center (BNSRC)	57
29	Su Su Aung	Cardioembolic Stroke in a National Stroke Centre: A Retrospective Analysis from Brunei Darussalam	58
30	Dr Hajah Amal NADZIRAH ROSLI	Retrospective Review Of Dementia Patients And Cognitive Assessment Tests In Geriatrics Clinic, Brunei Darussalam.	59
31	Muhammad Hanif AHMAD	Trends In Geriatric Inpatient Care In Brunei: Comparative Audit Analysis Of 2015 Versus 2023	60
32	Dr Nur Husnina Binti MATALI	Audit on Postnatal Screening in Patients Diagnosed with Gestational Diabetes Mellitus	61
33	NURULHUDA BINTI A MANAP	Audit on Amphetamine use among patients diagnosed with intracranial hemorrhage on Neuro-Intensive Care Unit.	62
34	Anish George RAJAN	Role of sonographic optic nerve sheath diameter monitoring as an adjunct investigation in diagnosis and monitoring of patients with intracranial hypertension	63
35	Dk Nurul MU'IZZAH Pg Hj MU'IZ-ZUDDIN	Integrating Thalassemia Screening Into The Non-Communicable Disease Framework: A Public Health Perspective From Brunei	64
36	KHIN Thida Aung	Yield of CT Pulmonary Angiogram in a Tertiary Care Specialist Centre in Brunei.	65
37	Dawn Antony	Draining The Brain, Is Not The Solution For All Subdural Hematomas	66
38	HAZIRAH binti Shafri	Clinical, Radiological and Neurophysiological Features of Motor Neuron Disease.	67

1: Integrating Next-Generation Sequencing (NGS) Insights and Survival Analysis in Prostate Cancer in Brunei Darussalam: A Retrospective Cohort Study.

Hein Minn Tun 1,2, Owais Ahmed Malik 2, Lin Naing 1, Muhammad Syafiq Abdullah 3, Thu Ta 3, Hanif Abdul Rahman 1,2
 1 PAPRSB Institute of Health Science, Universiti Brunei Darussalam
 2 School of Digital Science, Universiti Brunei Darussalam
 3 Brunei Cancer Centre (TBCC), Jerudong Park Medical Centre (JPMC)

Introduction: Prostate cancer (PCa) ranks as the fourth most common cancer among men worldwide, with 1.41 million new cases reported in 2020. Next-Generation Sequencing (NGS) represents a transformative tool in precision oncology, offering the potential for improved treatment outcomes. This study aimed to explore the genetic landscape of prostate cancer patients through NGS data and to assess survival patterns within this cohort.

Materials and Methods: A retrospective cohort study was conducted using data from 213 prostate cancer patients treated at the Brunei Cancer Centre (TBCC) between January 2018 and December 2024. Demographic and clinical outcomes, as well as NGS results, were analysed. Data preprocessing and exploratory analysis were followed by survival analysis using Kaplan-Meier estimations in Python version 3.13.

Results: The majority of patients were aged 70–79 years (38.97%) and predominantly Malay (65.15%). NGS testing was performed in 31.46% of patients, with a near-equal split between positive (47.76%) and negative (52.24%) results. The most commonly observed genetic mutations include TP53, ATM and MSH3 (n=5 each) and BRCA2, KRAS (n=3 each). Over 28 variants of insignificant mutation were reported. Survival analysis revealed a gradual decline in survival probability over time, with approximately 70%

estimated to survive beyond five years. No significant survival difference was observed between NGS-tested and non-tested groups.

Conclusion: The study reveals a diverse gene mutation profile among PCa patients in Brunei, while current treatment protocols remain largely unaffected by these findings. These findings will contribute to the development of multimodal clinical decision-support tools tailored to prostate cancer treatment in Brunei.

2: Use Of NIV in MND Patients in Brunei Darussalam.

Suprianto SURYONO & Dayangku Siti NUR ASHIKIN
 Internal Medicine RIPAS Hospital & Brunei Neuroscience Stroke and Rehabilitation Centre, Pantai Jerudong Specialist Centre (PJSC), Brunei Darussalam.

Introduction: Motor neuron diseases (MND) is a group of neurodegenerative disorders affecting the motor cells in the brain and spinal cord. The muscles are unable to move effectively, resulting in weakness and atrophy. Non-Invasive Ventilation (NIV) in MND patients improves breathlessness, quality of life and life expectancy. There are no firm guidelines on time of initiation whilst feasibility is widely subjected to local economics and policies.

Materials and Methods: An audit on our experience with NIV in the MND Clinic from 1st January 2020 to 30th June 2024 at the Brunei Neuroscience Stroke and Rehabilitation Centre, Pantai Jerudong Specialist Centre (PJSC), Brunei Darussalam. Descriptive statistics were used to analyze the data collected.

Results: 21 patients attended the MND clinic during the study period. They presented with common symptoms as in Figure 1. Of these, 71.1% (15) were male and 28.9% (6) female. None of the patients were initiated on home NIV support. However, 48.0% (n=10) were documented as having received counselling regarding NIV. Among these 28.6% (6) declined due to fear, 19.0% (4) refused without a reason, and 52.0% (n=11) had no documentation of NIV counselling. The all-cause mortality rate was 52.4% (n=11). Of these, 90.9% (n=10) died from aspiration pneumonia, and 9.1% (n=1) from COVID-19 pneumonia.

Figure 1: Mutation Gene diagnosed in the prostate cancer patient in Brunei Cancer Center (TBCC) from January 2018 to 2024 December (n=32)

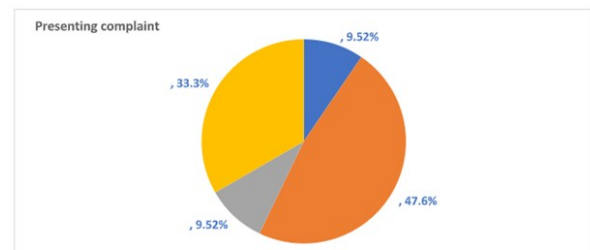
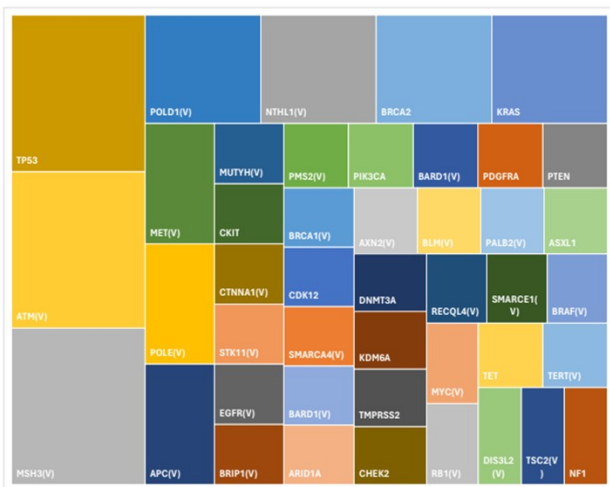


Figure 1.

Table

(Months)	Mean	Median	Standard Deviation
Time from first Neurology encounter to diagnosis	4.9	4	3.5
Time from symptom onset to death =	16	13	9
Time from diagnosis to death	5.8	3	8.6

Conclusion: Published experience on the use of NIV for MND in Southeast Asia is lacking. Our study shows moderate documentation of discussion of NIV. Therefore, highlighting the need to better incorporate respiratory assessment and early discussion of NIV as positive outcomes relies on timing of interventions.

3: Post-Stroke Dementia Screening for Cognitive Impairment in Patients Following a Stroke.

Kon Chai ESHYN, DK SITI NUR 'ASHIKIN Binti Pg Dato Paduka Hj Tengah, NURUL ZAFIRAH Binti Hj Awg Mahli, YVONNE Lee Keen Lyn, MURSIDI Bin Haji Ali.

Brunei Neuroscience Stroke and Rehabilitation Centre, Pantai Jerudong Specialist Centre (PJSC), Brunei Darussalam.

Introduction: Post-Stroke Dementia (PSD) refers to any type of dementia that develops post-stroke. Early identification of signs is crucial in tackling PSD in Brunei. This pilot study aims to investigate the prevalence of cognitive impairment within two years after stroke, analysing the performance across cognitive domains with the use of clinical information for any potential indicators of future PSD.

Materials and Methods: A cross-sectional pilot study where Montreal Cognitive Assessment (MoCA) was conducted on patients within two years of post-stroke. The MoCA results were analysed using MoCA-MIS and CIND classifications to categorise patients into different estimated risk groups. Clinical history was compared with the results to observe notable trends.

Results: 17 patients (mean age = 62; 88% male) were recruited, with 18% had no cognitive impairment and 41% each with MCI and moderate CI. The largest proportion (80%) of moderate CI patients were found in the eldest age group (71-80 years). Memory and language domains were mostly affected. Hypertension (71%), smoking (59%) and hyperlipidemia (52%) were prevalent, along with diabetes (41%) and cardiovascular issues (29%).

Conclusion: This study found 82% had cognitively impaired within two years of post-stroke. Domain-specific deficits, which could be obscured by good MoCA results, may indicate early PSD. Older age, hypertension, hyperlipidemia and chronic smoking are associated with PSD risk. These findings highlight the need for domain-specific cognitive assess-

ments to improve early detection. Future longitudinal, population-based studies are essential to validate a tailored PSD risk model for Brunei.

4: Management of Gestational Diabetes Mellitus in Obstetrics and Gynaecology (O&G) Department at RIPAS Hospital, Brunei: A Prospective Audit and Analysis.

SEIT Mei Chien, MARY PAUL Chemmannour & HASLINDA Hassan.

Department of Health Services, Ministry of Health, Brunei Darussalam, Endocrine Unit, Department of Internal Medicine, RIPAS and Department of Obstetric and Gynaecology, RIPAS Hospital, Brunei Darussalam.

Introduction: Gestational diabetes mellitus (GDM) is glucose intolerance first recognised during pregnancy and resolved after delivery. It poses risks to both mother and baby. With a 17.1% incidence in Brunei, proper screening and management are essential.

Materials and Methods: This audit evaluated whether doctors in the O&G Department at RIPAS Hospital followed local guidelines for: (1) identifying clinical indications for early and 24–26-week oral glucose tolerance testing (OGTT); (2) correctly stating diagnostic thresholds for GDM; (3) referring patients for medical nutrition therapy (MNT); (4) requesting blood sugar profiles (BSP) after MNT; and (5) identifying BSP and 4-point Dextrostix target values for optimal control of GDM. The audit standards were set at 70% for all the objectives. A prospective audit involving 30 of 33 doctors was conducted using face-to-face interviews with a structured proforma. Responses were compared with local GDM guidelines and analysed using Excel.

Results: While 73.3% correctly identified previous GDM as an indication for early OGTT, only 23.3% recognised glycosuria as an indication. None met the 70% standard for 24–26-week OGTT indications. Only 40% stated the OGTT diagnostic thresholds correctly. However, 96.7% referred patients to MNT, and 83.3% requested BSP. Just over half identified BSP (52%) and Dextrostix (50%) target values correctly.

Conclusion: Although MNT referral and BSP monitoring were well adhered to, knowledge gaps in screening, diagnosis, and glucose target values remain. These may compromise GDM management. Improved training, guideline dissemination, and updates to clinical systems like Bru-HIMS are recommended.

5: Evaluation of Patients with Poorly Controlled Type 2 Diabetes Mellitus at a General Practice Surgery in the United Kingdom.

SEIT Mei Chien.

Department of Health Services, Ministry of Health, Brunei Darussalam.

Introduction: Most patients with Type 2 Diabetes Mellitus (T2DM) are managed in primary care. The aim of this project

was to evaluate the patients with poorly controlled T2DM at a General Practice (GP) surgery in the United Kingdom with the objectives of identifying the patients' characteristics, comorbidities, diabetes status, and barriers for poor control.

Materials and Methods: Convenient sampling was performed among patients with HbA1c levels over 58 mmol/mol. Using the GP surgery's electronic patient record system, a total of 70 patients' records were retrospectively examined. **Results:** Among the 70 patients, 58.6% were male. 31.4% were aged 50 to 59, 25.7% aged 70 to 79, and 20.0% aged 60 to 69. The majority (55.7%) of patients were White, followed by 24.3% Asian. Mental health issues were present in 22.9% patients. 78.6% of patients were overweight or obese. 67.1% had hypertension and 10.6% of these did not have the diagnosis coded. Chronic kidney disease (CKD) was found in 44.3% of patients, with 48.4% of these cases not coded. 65% CKD patients were not receiving SGT2i. HbA1c levels ranged from 59 to 143 mmol/mol. 60.0% patients were on at least two glucose-lowering agents. Only 59% had their annual T2DM reviews. Documentation of reasons for poor T2DM control was identified in 47% of patients; poor diet and medication compliance were the most common reasons.

Conclusion: Managing T2DM in primary care is complex. A need to have a systematic approach in diabetes care such as a better patient recall system to ensure adequate follow-up.

6: Enhancing Patient-Doctor Communication in Cancer Care with Empathy and Clarity: Through a Sense and a Smile- Literature Review.

San San Htay, Thu Ta, Su Su San, Myat Koe San.

The Brunei Cancer Centre (TBCC), Jerudong Park Medical Centre (JPMC), Brunei Darussalam.

Introduction: While cancer treatments have advanced significantly, its dynamic and disease-focused nature often overlooks the psychosocial impact on patients, families and related caregivers. This literature review explores the importance of value-based and patient-centered communication in oncology to preserve dignity and improve care quality. The objective of the study was to do a literature review of patient-centric communication in daily oncological practice.

Materials and Methods: Peer-reviewed articles and journals from JCO, ESMO, ASCO and academic databases including Cochrane library, PubMed, BMC and academic textbooks of Cambridge and Oxford University Press were consulted, published years between 2005 and 2024. Keywords included are "cancer", "oncology", "communication", and "patient-centered". Paediatric oncology related studies were excluded.

Results: Effective oncology communication is a delicate

skill that aligns clinical knowledge with compassionate care. It respects patient preferences, unique cultural values, emotional needs, and health literacy. Tools like "Ask-Tell-Ask" and reflective listening enhance clarity and prevent information overload. Patient care planning should be individualized rather than framed solely on clinical options paradigm with the principles of shared decision-making. Timely initiation of palliative care conversation is an essential aspect of patient-centered care. Transparent yet sensitive dialogue between patient and clinician fosters coping and aligns care with patient goals. Poor communication risks eroding trust and therapeutic relationships.

Conclusion: Empathic communication is vital in all cancer care stages, especially in prognosis and advance care planning. It should be guided by clarity, ethical integrity, and emotional sensitivity to support goal-concordant oncology care.

7: An Audit on Management of CKD in Patients with Diabetes According to NICE and Brunei PHC Guidelines.

Ahmed G Mahmoud, Mirza M Omar, Mubashir A Butt.
Berakas Health Centre, Primary Health Care.

Introduction: Chronic kidney disease (CKD) is a major complication of type 2 diabetes and a leading cause of end-stage renal disease (ESRD). Primary Health Care (PHC) is pivotal in early detection, initiation of reno-protective therapy, and timely nephrology referral. This audit assessed adherence to NICE, Brunei Nephrology CPG (2019), and PHC dapagliflozin initiation guidelines in Berakas Health Centre.

Materials and Methods: A retrospective review (Jan–Mar 2025) was conducted for diabetic patients with CKD (n=285) after applying exclusion criteria. Data on eGFR, urine ACR, ACEI/ARB use, dapagliflozin prescribing, and renal referrals were compared against audit standards.

Results: ACR monitoring met target (81.1% vs $\geq 80\%$), as did ACEI/ARB prescription in eligible patients (84.3% vs $\geq 80\%$). eGFR monitoring fell short (72.3% vs $\geq 80\%$). Dapagliflozin was prescribed in 38.4% of eligible patients (target $\geq 70\%$), mainly due to poor glycaemic control, deferred initiation, or lack of adherence to eligibility criteria. Of 18 patients meeting NICE renal referral criteria, only 6 (33.3%) were referred; most non-referred cases had persistent proteinuria despite maximal ACEI therapy.

Conclusion: While ACR monitoring and ACEI/ARB prescribing were strengths, eGFR monitoring, dapagliflozin use, and renal referrals were suboptimal. Missed referrals—especially in persistent proteinuria—represent lost opportunities for specialist input. Improving clinician awareness, optimising documentation, creating CKD/dapagliflozin/referral posters, and conducting targeted CME sessions are recommended. Re-audit is planned to measure improvement.

8: Risk Factors Associated with the Onset of Type 2 Diabetes in Generation Z in the United Kingdom.

AQSA Kiran & AMMAR Salman Syed.

University Hospital Southampton, United Kingdom.

Introduction: Type 2 diabetes, or non-insulin-dependent diabetes mellitus, is a well-known medical condition that increasingly affects the young generation. This paper looks at the role of genetic and ethnic background on food choices and obesity, among the UK Generation Z and their predisposition to T2D. The aims and Objectives were to; 1. To review how genetics, ethnicity and dietary patterns each contribute to obesity in UK Generation Z, and 2. To identify key gaps in Gen Z specific research around gene-diet-ethnicity interaction.

Materials and Methods: In this systematic review, we conducted a comprehensive search of PubMed, Scopus, Web of Science and Google Scholar (2015–2024), following PRISMA guidelines. Eligible studies addressed UK Gen Z individuals, reported data on genetic variants, ethnicity, and/or food-consumption trends, and measured obesity or T2D outcomes. Methodological quality was appraised using CASP checklists.

Results: The study shows that genetic and ethnic factors have a strong relation to diet and weight gain, which in turn increases the probability of T2D. Hence, South Asians and Africans exhibited higher T2D prevalence attributable to their high-carbohydrate diets and insulin-resistance genes. Unhealthy foods and their unhealthy patterns were linked with obesity and high T2D risk, mainly owing to the consumption of processed foods and high sugar. Such a situation with T2D if left uncontrolled, particularly in youths will result in long-term disastrous complications such as cardiovascular diseases, renal failure, and cognitive dysfunction.

Conclusion: The intervention for T2D using live modalities and other public health strategies is necessary for preventing complication-related ailments. The recommendations consequently adopt health promotion activities such as healthy nutrition, routine check-ups on health, and appropriate public health interventions that are culturally competent.

9: Thrombosis And Complications in Polycythemia Vera: A Decade Long Retrospective Study in Brunei Darussalam.

ZAFIRAH Bahri, AFIFAH Shazli, NOORAINUN Yusof, ROSERAHAYU Idros.

Haematology Unit, Department of Internal Medicine, RIPAS Hospital, Brunei Darussalam.

Introduction: Polycythemia vera (PV) is a myeloprolifera-

tive neoplasm associated with thrombosis and risk of fibrotic or leukaemic transformation. This study aims to characterise PV patients in Brunei and explore the factors linked to thrombosis.

Materials And Methods: We conducted a retrospective study of PV patients who were diagnosed and followed up over the period of 2014 –2024. Data was obtained from our national electronic health record system.

Results: 49 patients were classified as PV and all were JAK2V617F positive. 34 patients (69.4%) were male. The mean age in our study was 61.8 years. Bone marrow was evaluated in 7 patients (14.3%) while erythropoietin (EPO) levels measured in 36 (73.5%). The mean hematocrit levels at diagnosis were 59.6%. 33 (67.3%) had leukocytosis of more than $11.0 \times 10^3 \mu\text{L}$. 27 patients (55.1%) were classified as 'high risk'. 40 (81.6%) were on aspirin, 28 (57.1%) on hydroxyurea and 42 (85.7%) had undergone venesection. Other treatments include 2 patients (4.1%) on clopidogrel, 2 on anticoagulants (4.1%), 1 on PEG interferon (2.0%) and 1 on Ruxolitinib (2.0%). 5 patients (9.4%) had thrombosis at diagnosis (arterial 7.5%, venous 1.9%). This group had a higher mean WCC (19.2 vs $15.3 \times 10^3/\mu\text{L}$). 1(1.9%) high-risk patient developed arterial thrombosis during treatment. 41 patients (83.6%) had cardiovascular risk factors including 6 patients with thrombosis. No patients progressed to myelofibrosis or leukemic transformation.

Conclusion: The estimated PV incidence in Brunei was 1.1 per 100 000 person-years with male: female ratio of 2:1 consistent with other studies. Thrombosis was mainly arterial and associated with age and cardiovascular risk factors. Higher WCC in the thrombosis group supports a possible role of leukocytosis in thrombosis.

10: Essential Thrombocythaemia in Brunei Darussalam: A Ten-year Retrospective Observational Study.

Hnin Thuzar Win, Noorainun Yusof, Roserahayu Idros.

Haematology Unit, Department of Internal Medicine, RIPAS Hospital, Brunei Darussalam.

Introduction: Essential thrombocythaemia (ET) is a clonal myeloproliferative neoplasm that predisposes patients to thrombotic complications, leukaemic transformation and progression to myelofibrosis. This study aimed to evaluate clinical characteristics and complications of ET patients in Brunei.

Material and Methods: A retrospective observational study was conducted on all patients diagnosed with ET between 2014 – 2024 using data from the national electronic medical record.

Results: 65 patients were diagnosed with ET based on WHO 2016 diagnostic criteria, comprising 28 males (43%) and 37 females (57%), with a mean age of 55 years (range 13–90); 43% were aged over 60. 51 patients (78%) had JAK2V617F, 7 (10%)

had CALR exon 9, 8 (12%) were triple negative and none (0%) had MPL exon10 mutation. Mean platelet count at presentation was $1030 \times 10^3/\mu\text{L}$ (range 515–3448), and 41.5% had counts $>1000 \times 10^3/\mu\text{L}$. 43 patients (66%) had cardiovascular risk factors. Based on IPSET-Thrombosis score, 39 patients (60%) were high-risk, 14 (23%) intermediate-risk, and 12 (17%) low-risk. Thrombosis occurred in 13 patients (20%): 4 (6%) at diagnosis (2 arterial, 2 venous) and 9 (14%) during follow up (8 arterial, 1 venous). Of these, 10 (77%) were high-risk, 11 (85%) had JAK2V617F, 10 (77%) had cardiovascular risks and 6 (46%) were over 60. 2 patients (3%) had leukemic transformation. Both had advanced age, extreme thrombocytosis and JAK2V617F. No patient progressed to myelofibrosis. 51 patients (79%) were on aspirin, 51 (79%) on hydroxyurea, 14 (22%) on pegylated interferon-alpha and 3 (5%) on anticoagulants.

Conclusion: ET incidence in Brunei is estimated at 1.5 per 100,000 person-years. Thrombosis was mainly arterial and linked to JAK2 mutation and cardiovascular risks.

11: A Study on Type 2 Diabetes Mellitus Patients Followed up in Primary Health Care Centres, Ministry of Health, Brunei Darussalam.

HANI Tengah, SEIT Mei Chien, Najib NAIBI.
Ministry of Health, Brunei Darussalam.

Introduction: The high prevalence of T2DM in Brunei Darussalam with its associated morbidities and mortalities necessitated an exploration of the characteristics, comorbidities, complications, and treatment profiles of patients with T2DM, most of whom are managed in primary health care centres under the Ministry of Health, Brunei Darussalam.

Materials and Methods: This was a retrospective study of patients with T2DM followed up in primary health care centres under the Ministry of Health, from January to May 2024. Data extracted from Bru-HIMS included demographics, glycaemic control, comorbidities, complications, and treatment profiles, and were analysed using descriptive statistics.

Results: A total of 645 patients were included. Most were female (57.2%), aged 50–69 (57.0%), Malay (88.7%), and Bruneian (94.4%). The mean age at diagnosis was 46.1 years, with nearly 60% diagnosed before 50. Obesity was prevalent (47.7%), while 14.0% had normal BMI. The mean HbA1c was 8.2%, and 31.1% achieved HbA1c of $\leq 7.0\%$. About 38.8% had concurrent hypertension, hyperlipidaemia, and obesity. Blood pressure was controlled ($\leq 130/80\text{mmHg}$) in 28.2% of the patients. 49.8% had at least one diabetes-related complication, mainly nephropathy. Among patients with CKD stage 3 or above, 60.9% were on ACE inhibitors

or ARBs, while 8.7% received SGLT-2 inhibitors. Most were on oral hypoglycaemic agents (85.3%) and statins (76.9%).

Conclusion: This study raises concerns about early diabetes diagnosis alongside high prevalence of obesity, hypertension and hyperlipidaemia. Poor glycaemic and blood pressure control likely contributed to diabetes-related complications. These findings highlight the need for earlier interventions, improved management, and further research into barriers to lifestyle changes and medication adherence.

12: Gestational Diabetes Mellitus and Associated Perinatal Complications at a Tertiary Centre in Brunei Darussalam.

Adibah Salleh, Rasyidah Damit, Chong Vui Heng, Alice Yong Moi Ling.
Endocrine Centre, Department of Internal Medicine, RIPAS Hospital, Brunei Darussalam.
Department of Obstetrics and Gynaecology, RIPAS Hospital, Brunei Darussalam.

Introduction: Gestational diabetes mellitus (GDM), defined as glucose intolerance first detected during pregnancy, is increasingly prevalent due to rising obesity rates, sedentary lifestyles, and advanced maternal age. GDM is associated with both maternal and neonatal complications.

Materials and Methods: A retrospective audit was conducted on GDM cases from 2015 to 2017 at RIPAS Hospital. Data collected included demographics, BMI at booking, family and GDM history, Oral glucose tolerance test (OGTT) results, delivery details, and neonatal outcomes.

Results: Among 281 mothers with GDM, 89.7% were Malay, with a mean age of 32.6 years and mean BMI of 30.3 kg/m^2 . Obesity was present in 50.9%. Previous GDM occurred in 33.1%, and 64.4% had a family history of diabetes. OGTT was performed at a mean gestation of 20.6 weeks. Gestational hypertension and pre-eclampsia occurred in 21.0% and 9.3% respectively. Caesarean section rate was 35.9%. Neonatal outcomes included 11.9% low birth weight and 7.1% macrosomia. Postnatal OGTT was completed in nearly half the cohort, with 7.1% diagnosed with type 2 diabetes.

Conclusion: The audit highlights a high-risk GDM population with early onset and significant maternal obesity. Despite relatively low complication rates, the findings underscore the importance of early screening, intervention, and targeted public health strategies.

13: Nilotinib-Associated Arterial Thrombosis in Chronic Myeloid Leukemia: A Case Series.

PARAMESWARY SUBRAMANIAM, Roserahayu Idros, Noorainun Yusof.
Haematology Unit, Department of Internal Medicine, RIPAS Hospital, Brunei Darussalam.

Introduction: Nilotinib is widely used in managing chronic myeloid leukemia (CML) due to its efficacy in achieving deep molecular responses. However, concerns have emerged regarding its association with arterial thrombotic events (ATEs), particularly ischemic strokes and coronary artery disease.

Materials and Methods: A retrospective review was conducted on 19 patients with CML who received Nilotinib at Haematology Unit, RIPAS Hospital, evaluating demographic characteristics, treatment duration, vascular risk factors and associated complications.

Results: In a cohort of 19 patients (mean age 47.7 years; 63% male) receiving Nilotinib, 4 individuals (21%) developed ATEs during treatment. Case 1: A 72-year-old male with diabetes, hyperlipidaemia, and on Nilotinib since 2012 had a right middle cerebral artery (MCA) infarct in October 2024, followed by non-ST elevation myocardial infarction with severe three-vessel disease in June 2025. Case 2: A 41-year-old male with hypertension on Nilotinib since July 2023 presented in June 2024 with a left MCA infarct. Case 3: A 64-year-old female with hypertension and hyperlipidaemia on Nilotinib since November 2023, presented in April 2025 with right facial weakness and dysarthria; MRI showed a left periventricular MCA perforator infarct. Case 4: A 49-year-old male with prior nasopharyngeal carcinoma treated with chemoradiotherapy in 2021, developed bilateral MCA infarcts in 2015 after four years on Nilotinib.

Conclusion: In this case series of four patients with CML receiving Nilotinib, three experienced cerebrovascular events and one developed severe multivessel coronary artery disease. Events occurred both early (within 1 year of therapy) and late (after >10 years), suggesting that vascular complications are not strictly time dependent. Imaging consistently revealed in situ arterial pathology without embolic sources. These findings support growing evidence of Nilotinib's vascular toxicity. Routine cardiovascular risk stratification, close monitoring, and timely intervention are essential to mitigate serious thrombotic events in patients on long-term Nilotinib therapy.

14: Machine Learning-Based Risk Prediction for Colorectal Cancer: Towards a Digital Screening Tool for Brunei.

UMMI SALWA SUHAIMEI, Hanif Abdul Rahman, Mohd Ayub Sadiq @ Lin Naing.
Institute of Health Sciences, PAPRSB, Universiti Brunei Darussalam.

Introduction: Colorectal cancer (CRC) is the second most common cancer in Brunei, with incidence rates among the highest in Southeast Asia. Current screening relies on opportunistic fecal immunochemical tests (FIT) and colonoscopy,

which are invasive, resource-intensive, and place added strain on the health system. Critically, there is no triage system to guide who should be screened first, leading to inefficient use of colonoscopy resources. Machine learning (ML)-based risk prediction offers a scalable, non-invasive pathway to improve early detection and optimise screening efficiency.

Materials and Methods: We constructed a dataset of 601,225 participants from multiple international cohorts, harmonising demographic, lifestyle, and health variables. Predictors included age, sex, smoking, alcohol use, BMI category, physical activity, family history, and insurance coverage. Data were split into training (70%) and testing (30%). Logistic regression, support vector machines (SVM), random forest, and XGBoost models were developed and compared using AUC, accuracy, sensitivity, specificity, precision, recall, and F1 score.

Results: XGBoost achieved the best performance (AUC 0.919, F1 0.854), outperforming random forest (AUC 0.911, F1 0.845), logistic regression (AUC 0.877, F1 0.810), and SVM (AUC 0.860, F1 0.780). Consistently strong predictors included physical activity, age, and BMI, reflecting their robust discriminatory ability across models.

Conclusion: This study demonstrates the feasibility of using ML-based models for CRC risk prediction. Embedding such a model into Brunei's digital health platform (BruHealth) could provide a population-wide triage system to prioritise screening, enhance efficiency, and optimise colonoscopy use. External validation using Brunei data is underway to ensure local applicability and ultimately reduce the national burden of CRC.

15: Breast Cancer Treatment Modalities, Treatment Delays, And Survival in Brunei Darussalam.

ANG Woan Yean, Elyynna LEONG, ONG Sok King & Zulkhairi MOHAMAD.
Institute of Health Sciences, PAPRSB, Universiti Brunei Darussalam.
Ministry of Health, Brunei Darussalam,
The Brunei Cancer Centre, PJSC, JPMC, Brunei Darussalam

Introduction: Breast cancer remains a leading cause of cancer-related mortality globally. This study examines demographic variables, treatment modalities, and treatment delays in relation to survival outcomes among breast cancer patients in Brunei Darussalam.

Materials and Methods: A retrospective study was conducted using the Brunei Darussalam Cancer Registry data for cases diagnosed between 2013 and 2022. Descriptive statistics summarised patient characteristics, Kaplan-Meier estimates were used to calculate overall survival (OS) and generate survival curves, log-rank tests to determine significant differences between groups. Cox Proportional Hazard models were used to estimate hazard ratios (HRs) and identify predictors of survival outcomes. Relative survival (RS) was calculated by comparing observed survival

with expected survival from population life tables.

Results: A total of 431 women diagnosed with breast cancer were analysed, most diagnosed at the regional stage (45.7%) and localised stage (39.0%). Surgery was the most common first-line treatment (55.9%), followed by chemotherapy (30.6%), both with a median first-line treatment of 37 days. More than half of the patients (62.9%) began treatment within 60 days of diagnosis. Five-year RS was highest among patients treated with surgery alone (98.7%), with corresponding OS of 92.3%. Delays beyond 60 days were associated with poorer survival (HR=2.5). Multivariate analysis identified cancer stage as the most significant predictor, with distant stage associated with a substantially increased risk of death (HR=15.3).

Conclusion: Ensuring treatment initiation within two months post-diagnosis may improve survival outcomes and support the establishment of national benchmarks for timely cancer care.

16: Modified Barthel Index (MBI) as a Tool for Evaluating Post-Thrombolysis Outcomes in Acute Ischemic Stroke (AIS) Patients.

Guan Choon CHAN, Hein Htet ZAW, Chooi Lynn LEE.
Brunei Neuroscience Stroke and Rehabilitation Centre, Pantai Jerudong Specialist Centre (PJSC), Brunei Darussalam.

Introduction: Intravenous thrombolysis improves neurological function in patients with AIS. However, no universally accepted tool exists for assessing outcomes in acute stroke. The Modified Barthel Index (MBI), which evaluates activities of daily living, has demonstrated internal consistency in stroke populations. This audit aimed to assess functional outcomes using MBI in AIS patient's post-thrombolysis at 6 and 12 months.

Material and Methods: This retrospective case review included AIS patients who received intravenous thrombolysis and were admitted to the Brunei Neuroscience Stroke and Rehabilitation Centre between 1st January and 31st December 2020. Functional outcomes were measured using the MBI at admission, and at 6- and 12-months post-stroke.

Results: 22 patients underwent intravenous thrombolysis. 2 were excluded (1 died the following day, and 1 was repatriated). The remaining 20 patients (14 males, 6 females; mean age 58; mean admission MBI = 67 ± 27) were included. On admission, 45% were in the severe or total dependence group, 30% in moderate dependence, 20% in slight dependence, and 5% were fully independent. At 6 months (mean MBI = 90 ± 26), these improved to 10%, 10%, 5%, and 75%, respectively. One of the two patients in the total dependence group died within 12 months. The remaining patients main-

tained their MBI classifications (mean MBI = 93 ± 23).

Conclusion: Majority of AIS patients who received intravenous thrombolysis were fully independent by 6 months. All patients initially classified as slightly dependent became fully independent, while those in the total dependence group had a high mortality rate within 6 months. Despite limitations in stroke outcome measure, MBI can be readily incorporated into clinical performance audits of AIS thrombolysis services.

17: Stroke Mimics: Getting to The Point with Quick MRI Imaging.

Guan Choon CHAN, Zahraa ZAGHLOUL, Sunithi MANI, Dayangku Siti Nur'Ashikin TENGGAH.

Brunei Neuroscience Stroke and Rehabilitation Centre, Pantai Jerudong Specialist Centre (PJSC), Brunei Darussalam.

Introduction: Primary imaging for suspected stroke at the Brunei Neuroscience Stroke and Rehabilitation Centre (BNSRC) is MRI brain which currently is atypical. A short-focused MR protocol (DWI, ADC, SWI, T2 Flair and TOF) is performed when considering thrombolysis or interventional treatment. The aims and objectives are to determine timing and advantages of MRI Brain as primary imaging to exclude stroke mimics.

Materials and Methods: Retrospective case note review of suspected stroke referrals to BNSRC in December 2019 and January 2020.

Results: Of 101 patients referred for suspected stroke, 19 were excluded (13 prior imaging, 5 non-urgent and 1 unstable). MRI brain on 71 patients showed 48 strokes (41 ischaemic, 7 haemorrhagic) and 23 stroke mimics (6 migraine, 3 seizure, 3 peripheral vertigo, 3 metabolic, 3 Bell's palsy, 5 others). Mean time from arrival to imaging was 55 minutes with urgent cases imaged averaging 26 minutes. Focused MR protocol took a mean of 7 minutes.

Conclusion: Most suspected strokes in BNSRC have MRI brain taking only 7 minutes within an hour of arrival and within 30 minutes for urgent patients. This effectively rules out stroke mimics comprising 1/3 of stroke referrals. Whilst cost of scans is an important factor, this study demonstrates feasibility, efficacy and offers efficient resource utilisation e.g., bed management, nursing, multi-disciplinary referral and investigations.

18: Magnetic Resonance Susceptibility-Weighted Imaging: Future Management of Hyperacute Cerebral Ischaemia.

Guan Choon CHAN, Chee Shin YONG, Sunithi MANI, Dayangku Siti Nur'Ashikin TENGGAH.

Brunei Neuroscience Stroke and Rehabilitation Centre, Pantai Jerudong Specialist Centre (PJSC), Brunei Darussalam.

Introduction: Susceptibility-weighted imaging (SWI) is not only sensitive in detecting haemorrhage but it is used to complement

other MRI sequences. In the era of revascularization therapy during hyperacute cerebral ischemia, SWI can provide useful information in decision making. Our objective is to determine whether SWI correlates well with magnetic resonance angiogram (MRA) and FLAIR, intravascular thrombus and illustration of distal slow flow possibly depicting penumbra.

Materials and Methods: Retrospective case-notes of patients admitted to Brunei Neuroscience Stroke and Rehabilitation Centre with hyperacute cerebral ischemia (within 6 hours of symptoms onset) were selected from January to March 2021. All imaging were reviewed by a neuroradiologist to see if SWI correlates with MRA, FLAIR, thrombus and distal slow flow.

Results: 25 patients presented with hyperacute cerebral ischemia. 24 (96%) showed SWI findings that correlated with MRA in demonstration of stenosis or occlusion in branch or territorial infarct but not in perforator infarcts. One case with a cortical infarct, MRA did not cover the high cortex. In 11 patients Intravascular thrombus were evidenced in SWI and all had slow flow distal to the thrombus in FLAIR. SWI correlates with 10 (91%) of these patients for distal slow flow.

Conclusion: Aside from advances in stroke treatment, imaging-based selection of eligible patients for revascularisation therapy in hyperacute cerebral ischaemia is crucial to success. MRI imaging is increasingly being used and, in our audit, not only was SWI as good as MRA in determining vessel status, it was capable to depict intravascular thrombus and distal blood flow of a vessel.

19: Comorbidity Profile of Obstructive Sleep Apnea Patients Requiring Non-Invasive Ventilation in Brunei Darussalam: A Retrospective Review.

Nabila DATO DR HJ SERUDIN & Ezatul Shima AZAHARI.

Division of Respiratory Medicine, Department of Internal Medicine, RIPAS Hospital, Brunei Darussalam.

Introduction: Obstructive Sleep Apnea (OSA) is characterized by recurrent episodes of airway obstruction during sleep, resulting in oxygen desaturation, arousals, and excessive daytime somnolence. International studies have shown strong associations between OSA and comorbidities such as cardiovascular, metabolic, and renal disorders. In Brunei Darussalam, diagnosis relies on the Epworth Sleepiness Scale (ESS) and overnight pulse oximetry, given limited access to polysomnography. This study aimed to evaluate the prevalence of major comorbidities among patients with OSA requiring non-invasive ventilation (NIV) in the Department of Respiratory Medicine, RIPAS Hospital, Brunei.

Materials and Methods: A retrospective review was conducted of 65 patients diagnosed with OSA and initiated on

NIV between January and December 2024. OSA diagnosis was based on ESS scores ≥ 10 with evidence of nocturnal desaturation. Patient charts were reviewed for comorbidities, including hypertension, type 2 diabetes mellitus, dyslipidaemia, chronic kidney disease, ischaemic heart disease, and complications such as pulmonary hypertension.

Results: Among 65 patients (31 males, 34 females; mean age 48 years), the mean BMI was 50.5, with 77% classified as morbidly obese. Hypertension was the most common comorbidity (92%), while 76.9% fulfilled criteria for metabolic syndrome. Pulmonary hypertension was present in 64.6% of cases.

Conclusion: OSA patients in Brunei requiring NIV demonstrate high rates of metabolic syndrome, with pulmonary hypertension as a frequent complication. Despite diagnostic limitations, the comorbidity profile mirrors international data, highlighting the need for early detection and broader access to diagnostic and therapeutic resources.

20: Early Onset Endometrial Cancer in Brunei Darussalam and its risk factors.

Farhana AYUP, Yu Khin HNIN, Shantila MOMIN, Qatriyah NOKMAN, Farah YUSSOP.

Department of Obstetric and Gynaecology, RIPAS Hospital, Brunei Darussalam.

Introduction: Endometrial cancer (EC) primarily affects postmenopausal women. Recently, there is an increase of early onset EC (under age 50) worldwide. This alarming trend is also observed within our Brunei population. Its rise introduces treatment challenges such as loss of reproductive function, premature menopause and its risks, and psychosocial issues. Our group aims to highlight the burden of EC particularly early onset EC in Brunei and identify the underlying risk factors to allow future prevention and improve management.

Materials and Methods: EC cases from 2020 to 2024 were compiled from the Brunei National Cancer Registry and classified by age. EC cases (under age 50) were further analyzed by its staging, grade, histology and the presence of risk factors: obesity, nulliparity, diabetes, polycystic ovarian syndrome, known endometrial hyperplasia, use of hormonal therapy, a personal history of cancer or genetic disposition.

Results: From 2020 to 2024, EC cases rose by 20%. 47% cases were of early onset EC with the highest incidence between women ages 40 to 49. Worryingly, 1.6% cases were younger than 30. The majority of early onset EC were diagnosed at an early stage with low grade and histology. Obesity, nulliparity, and diabetes were the leading risk factors recognized.

Conclusion: Early onset EC accounts for nearly half of Brunei's EC burden. This rising trend is consistent with the global rise in obesity, diabetes and family planning. This stresses the need for

effective prevention strategies, reliable and acceptable screening methods, and fertility-sparing treatment.

21: Enhancing and Sustaining Quality in Point-of-Care Glucose Monitoring: A National Evaluation of Point-of-Care Blood Glucose Test in Brunei Darussalam.

ADLI Talip & Ruwaida Jaberudin

Point-of-Care Testing Section, Department of Laboratory Services, Ministry of Health.

Introduction: Point-of-care testing (POCT) glucometers are crucial for timely diabetes management decisions. However, non-laboratory operators often lack technical expertise and understanding of quality control (QC) protocols. This study evaluated the adherence to QC program in blood glucose monitoring using the old glucometer, Freestyle Neo H and the current glucometer, Rightest GM700SB across Brunei's public healthcare system.

Materials and Methods: A mixed-methods approach guided by Plan-Do-Study-Act (PDSA) principles were used. QC records were assessed from April 2024 to June 2025. Staff competency and adherence to protocols were monitored through training records and observational audits. Root cause analysis was employed to identify barriers to compliance.

Results: 8/166 sites complied to the QC program using the old glucometers. Following the national rollout of the new glucometers, QC performing sites rose to 109 showing a significant increase in compliance. Adherence to the frequency of QC testing recorded an average of 65%, with over 25% of sites below 50%. Non-compliance to QC procedures was identified as the main issue among operators.

Conclusion: These findings highlighted the importance of an effective POCT quality management system, oversight and monitoring to ensure continuous quality improvements. However, diagnostic accuracy and timely clinical decision may be impacted due to in-adherent and non-compliant operators. Strengthening QC practices through structured training and competency, routine audits and sustainable QC management system to enhance quality, and system-level accountability is therefore essential for patient safety.

22: Feasibility of Implementing the Japan Gerontological Evaluation Study (JAGES) Approach in Brunei Darussalam.

Ak Muhd ARIF Asnawi bin Pg Junaidi, Hanif ABDUL RAHMAN, Chia Wei TAN.

Institute of Health Sciences, PAPRSB, Universiti Brunei Darussalam.

Geriatric Unit, Department of Internal Medicine, RIPAS Hospital, Brunei Darussalam.

Introduction: Brunei is projected to become an aging popu-

lation in the near future. For future preparation, Brunei can learn from the experience of Japan in planning for an aging society via the Japan Gerontological Evaluation Study (JAGES). This research study will involve assessing the feasibility of implementing the Japan Gerontological Evaluation Study (JAGES) approach in Brunei as well as assessing each JAGES component to determine baseline levels of each JAGES component among older persons in Brunei Darussalam.

Material and Methods: A cross-sectional feasibility study was conducted involving older adults (aged 60 years and above) residing in Tutong district, Brunei Darussalam. Data collection involved different survey methods, including interviewer-assisted administration, self-administration and online administration. The questionnaire was adapted from an existing JAGES questionnaire conducted in Malaysia. Feasibility was evaluated based on response rates, completion rates, completion time, as well as internal consistency reliability of each JAGES component.

Results: Feasibility assessment involved two methods, which were comparing dissemination methods and internal consistency reliability of each JAGES component. A total of 45 questionnaires were disseminated, with only 11 participants responding. Results showed that interviewer-assisted dissemination method had the highest yield, as evidenced by its higher response rate (46.7%). Cronbach's alpha analysis indicated disability ($\alpha=0.575$), abuse ($\alpha=0.551$), community group characteristics ($\alpha=0.502$), and environment ($\alpha=0.163$) were below the alpha threshold of 0.6, deeming them inconsistent.

Conclusions: The study showed interviewer-assisted dissemination as most feasible, with self-administration showing potential. Future research should take into account additional districts, longer study periods, and modified questionnaires.

23: Prevalence and Clinical Profiles of Mild Cognitive Impairment and Dementia at a Neuroscience Centre in Brunei Darussalam.

KHANT Zaw, YE Thwin, JESSIE Talimay Colacion.

Brunei Neuroscience Stroke & Rehabilitation Centre, PJSC, JPMC, Brunei Darussalam.

Introduction: Dementia is a leading cause of death and disability globally, posing significant healthcare challenges as the elderly population rises (WHO, 2023). This hospital-based study aims to determine the prevalence, types, and treatment patterns of mild cognitive impairment (MCI) and dementia among patients referred for cognitive assessment in Brunei Darussalam. The study aimed to estimate the prevalence of MCI and dementia, describe demographic and clinical features, and identify dementia subtypes and treatment trends.

Materials and Methods: A case-control study reviewing cognitive assessment reports from the clinical neuropsychology regis-

try was conducted. Patient demographics and clinical details were extracted from Electronic Health System (BRUHIMS) and analysed using Microsoft Excel. The study included all patients referred for cognitive assessment from January 1 to December 31, 2022.

Results: Among 223 patients, 61(27.3%) showed cognitive impairment; 5.8% had MCI, and 21.5% had dementia. The mean age was 67 years, with males constituting 55.7%. Young onset dementia (under age 65) accounted for 31.1%. Most patients (86.9%) had comorbid risk factors including hypertension (80.3%), hyperlipidaemia (63.9%), diabetes mellitus (40.9%), and stroke history (26.2%). Vascular dementia was most common (26.2%), followed by Alzheimer's disease and Parkinson's disease-related dementia (22.9% each). Mixed dementia and Lewy body dementia were less frequent. Treatments included Donepezil (32.7%), Memantine (11.4%), and Rivastigmine (6.5%), although 49.2% remained untreated.

Conclusion: This study documents a significant prevalence of MCI and dementia consistent with global hospital data. Vascular dementia predominates, reflecting high vascular risk burden. The sizeable untreated population suggests a need for improved management. Prospective studies are recommended to assess patient outcomes and optimize care in Brunei.

24: Clinical and Demographic Profile of Cryptogenic Stroke Investigations in the Brunei Neuroscience Stroke & Rehabilitation Centre.

YE Thwin, ETHAN Ng Heong Fei, KYAW Zay, Dayangku Siti NURASHIKIN Pengiran Tengah, Lim MEI Ann.

Brunei Neuroscience Stroke & Rehabilitation Centre, PJSC, JPMC, Brunei Darussalam.

Institute of Health Sciences, PAPRSB, Universiti Brunei Darussalam.

Introduction: The TOAST classification categorizes ischaemic stroke (IS) into five aetiological subtypes: large-artery atherosclerosis, cardioembolism, small-vessel occlusion, other determined aetiology, and cryptogenic stroke (CS) of undetermined cause after standard evaluation. CS has been linked to mechanisms including patent foramen ovale, occult atrial fibrillation (AF), and hypercoagulable states, and accounts for roughly 15–40% of IS worldwide. The Brunei Neuroscience Stroke & Rehabilitation Centre (BNSRC) is the national hub for stroke care in Brunei Darussalam, receiving the majority of IS admissions. The objectives of this study was to estimate CS prevalence among IS patients at BNSRC, describe demographic and clinical characteristics, and evaluate utilisation of routine and extended diagnostic modalities.

Materials and Methods: A registry-based study included adults with IS admitted to BNSRC from 1 January 2020 to 31 May 2021, using the BNSRC stroke registry and electronic health records (BRUHIMS). Exclusions were age<12, transient ischaemic attack, haemorrhagic stroke, and identified non-cryptogenic causes. Data included demographics, comorbidities, and diagnostic testing (brain MRI, ECG, carotid Doppler, transthoracic echocardiography, Holter, transoesophageal echocardiography, and extended rhythm monitoring).

Results: Among 526 IS cases, 38 CS cases (7.2%) were identified; mean age 57.6 years; 68.4% male. Hypertension (92.1%), diabetes (42.1%), and smoking (18.4%) were common. All underwent baseline testing; 39.5% received TOE; none had extended rhythm monitoring.

Conclusion: CS prevalence at BNSRC (7.2%) was lower than global estimates (15–40%), suggesting effective attribution of aetiology but potential underuse of extended cardiac monitoring. Evidence supports 21–30-day mobile cardiac outpatient telemetry or implantable loop recording to improve AF detection and guide secondary prevention. Enhanced pathways, including TOE, prolonged monitoring, and selected malignancy/genetic screening, are warranted.

25: Benefit of Immunomodulation Therapy in Glutamic Acid Decarboxylase-65 Autoantibody Related Epilepsy.

YE Thwin, DK Hjh NORAZIEDA Pg Hj Mohd Yassin, JESSIE Talimay Colacion, Hajah Anas NAOMI Dato Paduka Haji Harun.

Brunei Neuroscience Stroke & Rehabilitation Centre, PJSC, JPMC, Brunei Darussalam.

Introduction: Glutamic acid decarboxylase (GAD) catalyzes the synthesis of γ -aminobutyric acid (GABA), the principal inhibitory neurotransmitter, and is expressed in GABAergic neurons and pancreatic β -cells. Antibodies to GAD are linked to stiff-person syndrome, cerebellar ataxia, limbic encephalitis, and temporal lobe epilepsy; association with drug-refractory temporal lobe epilepsy has been recognized since 1998 and remains the third most common neurological GAD65 phenotype. The pathogenicity of anti-GAD antibodies is debated, yet high titers and CSF positivity support autoimmune epilepsy in appropriate clinical contexts. The objectives of this study were to show the benefit of immunomodulatory therapy in GAD65 autoantibody-related epilepsy (GAD65-AE).

Materials and Methods: A retrospective case series of five patients with recurrent seizures admitted to a single centre; clinical data were extracted from the hospital electronic records. Seizures were confirmed clinically with EEG; MRI, CSF, and blood tests excluded alternative aetiologies; anti-GAD65 antibodies were measured in serum (all) and CSF (one) with titers ranging from threefold to fourteenfold above reference.

Results: All patients failed at least two adequately dosed anti-seizure medications, consistent with drug-resistant epilepsy; none had diabetes, and one had prior breast cancer. Seizures improved when ASMs were combined with one or more immunomodulatory therapies, including intravenous immunoglobulin, rituximab, and plasmapheresis, aligning with emerging evidence for immunotherapy in GAD65-AE.

Conclusion: The clinical picture and serology support anti-GAD65 antibody-related epilepsy in this series; seizure control improved with adjunctive immunomodulation alongside ASMs. Although anti-GAD pathogenicity is contested, autoimmune aetiology should be considered in refractory epilepsy with positive anti-GAD titers, and immunotherapy is beneficial in managing the condition.

26: Investigation on Alternatively Spliced KCNMA1 Transcript Variants as Potential Breast Cancer Biomarkers.

BASYIRAH Jamaludin, Lu ZEN HUAT, and LIE Chen.
PAPRSB Institute of Health Sciences, Universiti Brunei Darussalam.

Introduction: Breast cancer (BC) is the leading cause of mortality among females globally. The poor prognosis associated with BC is primarily due to its heterogeneous nature and the limited availability of actionable biomarkers, highlighting the urgent need for new biomarker discovery. The big conductance potassium (BK) channel, encoded by KCNMA1, is ubiquitously expressed and known to play physiological roles in both healthy and cancer cells, including that of BC. However, conflicting expression levels and functional impacts on cell behaviour have been reported, suggesting alternative splicing of the gene may be at play. This study, therefore, investigated the potential association between specific KCNMA1 alternatively spliced transcript variants and the cancerous cellular states, tumour grades, or molecular phenotypes of BC.

Materials and Methods: A comprehensive exploration of the alternative splicing landscape of KCNMA1 was conducted by sequencing the transcriptomes of 10 FFPE BC samples (six triple-positive (TPBC) and four triple-negative (TNBC)), deriving from local Bruneian patients. Among the 127 alternative transcriptional isoforms identified in databases, 54 were found to be expressed in the BC samples. Notably, five transcript variants were expressed exclusively in the control sample, while Isoform X29 was uniquely expressed in all TNBC samples. Comparative qPCR analysis of two hyper-spliced regions in KCNMA1 across 31 FFPE BC samples (25 TPBC, six TNBC) revealed distinct splicing patterns between TNBC and TPBC.

Results: This study demonstrates for the first time that: (1) alternatively spliced KCNMA1 transcript variants are differentially expressed in non-tumour and BC tissues; and (2) splicing transcript variants are associated with BC molecular phenotypes and tumour aggressiveness.

Conclusion: this study reveals the complex alternative splicing spectrum of KCNMA1 in BC and underscores the potential of using some of these alternatively spliced transcript variants as diagnostic and progression prediction biomarkers.

27: Enhancing Patient Workflow and Satisfaction in Warfarin Clinics: Retrospective Study of Point-of-Care INR Testing Versus Laboratory INR and Its Safety Implications.

EMMA Munirah @ Salwa Binti Haji Mohamad, SUSYLAWATI Binti Haji Magon
Ministry of Health. Brunei Darussalam.

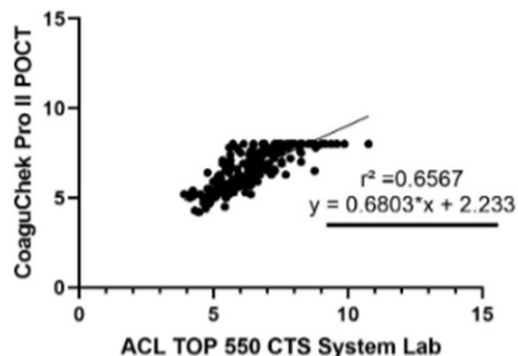
Introduction: International Normalised Ratio (INR) testing is essential for monitoring patients on warfarin therapy. Traditionally, laboratory-based INR testing required patients to undergo morning blood collection and return later in the day for treatment decisions, leading to prolonged waiting times, limited clinical interaction, and delayed management. In order to overcome these problems, point-of-care INR (POC-INR) testing was implemented in one-stop warfarin clinics at Raja Isteri Pengiran Anak Saleha (RIPAS) and Suri Seri Begawan Hospitals, Brunei Darussalam.

Materials and Methods: A retrospective study was conducted to determine the impact of POC-INR testing on workflow efficiency, patient satisfaction, cost-effectiveness, and correlation with laboratory INR. POC-INR results were compared with laboratory INR, with confirmatory testing performed for all POC-INR values ≥ 4.0 . Passing-Bablok regression analysis was applied. A post-implementation patient satisfaction survey was also conducted at clinics.

Results: Data were analyzed from January 2021 to July 2025 demonstrated poor correlation for POC-INR values >4.0 when compared with laboratory INR ($R^2 = 0.6567$), emphasizing the need for confirmatory laboratory testing in cases of elevated INR. Regardless of this limitation, patient satisfaction survey conducted after implementation has shown strongly positive feedback, with 100% of respondents reporting improved patient experience. Furthermore, when compared to standard laboratory-based testing the cost analysis demonstrates a 34.9% reduction from 2020 – 2024.

Conclusion: In summary, the implementation of POC-INR testing within one-stop warfarin clinic does significantly show a streamlined clinical workflow, reduced costs, and enhanced patient compliance and satisfaction. However, to ensure continuous accuracy and patient safety confirmatory laboratory testing

remains fundamental for POC-INR values above 4.0.



Comparison of POC-INR >4 with laboratory INR.

28: Post-Stroke Seizures in Brunei Neuroscience Stroke and Rehabilitation Center (BNSRC)

SU Su Aung, NORAZIEDA Yassin, JESSIE Talimay Colacion.
Brunei Neuroscience Stroke & Rehabilitation Centre, PJSC, JPMC, Brunei Darussalam.

Introduction: Stroke is the most common cause of epilepsy in adults. Post-stroke seizures (PSS) are classified into early-onset seizures (ES) and late-onset seizures (LS). This audit reviewed stroke patients admitted to the Brunei Neuroscience Stroke and Rehabilitation Center (BNSRC) over a six-month period (n=222). The objectives of the study were to; 1. To determine the prevalence of PSS among stroke patients from 1st April 2020 to 30th September 2020. 2. To describe patient demographics, stroke type and location, seizure onset and seizure type. 3. To review EEG findings and antiseizure medication (ASM) use.

Materials and Methods: A retrospective descriptive design was used. Patients with first-onset seizures following stroke were identified. Clinical data were obtained from the Neurology admission registry and BRUHIMS, while EEG reports were retrieved from the Neurophysiology Unit.

Results: Of 222 stroke patients, 41 (18.5%) developed seizures. Median age was 44 years (range 37–90), with males comprising 66%. Most cases were ischemic cortical strokes. The majority of seizures occurred more than one-week post-stroke, followed by seizures within 24 hours and between 1–7 days. Focal seizures were most frequent. EEG most often showed focal slowing or focal epileptiform discharges. Levetiracetam was the initial ASM in 73.2% of cases.

Conclusion: This audit showed that PSS are common in Brunei (18.5%), consistent with international data. Most

were late-onset focal seizures with corresponding EEG abnormalities. Further work is recommended to establish annual prevalence and assess the long-term impact on stroke survivors in Brunei Darussalam.

29: Cardioembolic Stroke in a National Stroke Centre: A Retrospective Analysis from Brunei Darussalam.

SU Su Aung, HAN Lin Naing, JESSIE Talimay Colacion, Dk Hjh NORAZIEDA Pg Hj Mohd Yassin.
Brunei Neuroscience Stroke & Rehabilitation Centre, PJSC, JPMC, Brunei Darussalam.

Introduction: Cardioembolic stroke (CES) is a major subtype of ischemic stroke, often severe but largely preventable with appropriate therapy. Data from Southeast Asia remain limited, especially in Brunei. The objectives of the study were to describe the clinical profile, investigations, outcomes, and management of CES at the Brunei Neuroscience Stroke and Rehabilitation Centre (BNSRC) in 2023.

Materials and Methods: A retrospective review was conducted of all stroke admissions at BNSRC between 1 January and 31 December 2023. Data were retrieved from the Brunei Health Information Management System (BruHIMS).

Results: Among 425 stroke cases (260 males, 165 females), 106 (24.9%) were CES. Median age was 65 years (range 21–96), with male predominance (65:41). Hypertension (85.8%), dyslipidemia (74.5%), and diabetes (40.6%) were common, while smoking was infrequent (4.7%). Atrial fibrillation (62.3%) was the leading etiology, followed by low ejection fraction (<30%) in 32.1%. All patients underwent transthoracic echocardiography; 31.1% had transesophageal echo, and 89.6% completed 24-hour Holter monitoring. Treatment varied: 56.6% received NOACs, 18.9% dual antiplatelets, 15.1% single antiplatelets, and 3.8% warfarin. Some were on combination regimens. Within one year, 30 patients (28.3%) died and 15 (14.2%) had recurrent stroke.

Conclusion: This study underscores atrial fibrillation as the dominant driver of CES in Brunei. Routine echocardiography and extended rhythm monitoring were feasible and valuable in detecting sources. However, significant variation and underuse of anticoagulation highlight gaps in guideline adherence. Standardised treatment pathways and long-term rhythm surveillance are essential to reduce recurrence and mortality in CES patients.

30: Retrospective Review of Dementia Patients and Cognitive Assessment Tests in Geriatrics Clinic, Brunei Darussalam.

Nadzirah ROSLI, Shyh Poh TEO.
Geriatric Unit, Department of Internal Medicine, RIPAS Hospital, Brunei Darussalam.

Introduction: Dementia is a leading cause of disability among

older adults, presenting profound challenges for health and social care systems worldwide. Understanding the clinical characteristics and cognitive profiles of patients is essential for improving diagnosis, care planning, and resource allocation. The aim of this study is to Describe the type of patients seen in Geriatrics clinic that had cognitive tests performed. Assess the correlation between cognitive test scores, dementia type and severity.

Materials and Methods: Retrospective review of patients seen in Geriatric Outpatient Clinics who had cognitive tests performed between 1st January 2022 to 31st June 2024. From the cognitive test, variables obtained are the scores for each of the cognitive domains (for RUDAS and MoCA). From the Bru-HIMS identifier on the cognitive test, the patient's electronic records will be accessed for patient demographics, risk factors, dementia subtype and severity.

Results: A total of 144 patients were evaluated, with a mean age of 79 years (range 63–91), and a female predominance (55%). The majority of patients were diagnosed with Alzheimer's disease (33%), vascular dementia (24%), or mixed dementia (21%), while smaller proportions had mild cognitive impairment (12%), Lewy body dementia, or other diagnoses. Cognitive assessment was performed using the Rowland Universal Dementia Assessment Scale (RUDAS, n=90) and the Montreal Cognitive Assessment (MoCA, n=54). The median Clinical Dementia Rating (CDR) was 1.0, indicating mild to moderate functional impairment. Performance on cognitive tests correlated with dementia subtype and severity: patients with Alzheimer's disease showed prominent memory deficits, while those with vascular or mixed dementia demonstrated greater impairment in executive and visuospatial domains. Educational background and cultural factors were also observed to influence test performance, underscoring the importance of selecting appropriate, context-sensitive tools in multiethnic populations.

Conclusions: The clinical diversity of patients presenting with cognitive impairment and reinforce the need for tailored approaches to assessment and care.

31: Trends In Geriatric Inpatient Care in Brunei: Comparative Audit Analysis Of 2015 Versus 2023.

Muhammad Hanif AHMAD, Yusnida YUSSOF, Shyh Poh TEO.
Geriatrics and Palliative Unit, Department of Internal Medicine, Raja Isteri Pengiran Anak Saleha (RIPAS) Hospital, Brunei.

Introduction: Brunei Darussalam is facing a rapidly ageing population and rising burden of non-communicable diseases (NCDs), contributing to increasing hospital admissions and healthcare costs. This study aimed to compare patient characteristics, functional outcomes, allied health input, and

mortality of patients admitted under the Geriatric Medicine service in RIPAS Hospital in 2015 and 2023.

Materials and Methods: A retrospective review of electronic medical records was conducted for all patients aged ≥ 65 years admitted under the Geriatric Medicine service between 1 January and 31 March for 2015 and 2023. Data collected included demographics, cognition, medication burden, Katz Functional Independence Index, allied health referrals, length of stay, in-hospital mortality and readmissions. Descriptive statistics were applied.

Results: Admissions more than doubled (76 to 170), with a higher median age (82 vs. 85 years) and consistent female preponderance (68%). Dementia prevalence was 36.8% in 2015; in 2023, 28.2% had dementia while 34.7% had possible cognitive impairment. Polypharmacy increased (median 6 vs. 8 drugs). Dependency (Katz score ≤ 2) was more pronounced in 2015 (69.7%) compared to 2023 (47.1%). Allied health referrals rose significantly: physiotherapy (45 to 104), occupational therapy (19 to 111), and dietetics (46 to 105), while speech therapy remained stable. Median length of stay remained unchanged at 8 days. In-hospital mortality increased (11.8% vs. 17.6%). In 2023, one-year mortality reached 53.5% with 46.2% had multiple readmissions within a year.

Conclusion: Geriatric admissions at RIPAS hospital increased more than two-fold within eight years, reflecting escalating complexity, functional dependence, polypharmacy, and multidisciplinary needs. These findings highlight the urgency to strengthen comprehensive geriatric assessment (CGA) outside specialty, expanding workforce capacity, and developing transitional and community-based care pathways.

32: Audit on Postnatal Screening in Patients Diagnosed with Gestational Diabetes Mellitus.

Nur Husnina MATALI, Pui Lin CHONG.
Endocrine Unit, Department of Internal Medicine, RIPAS Hospital, Brunei Darussalam.

Introduction: Gestational diabetes mellitus (GDM) is usually transient, but up to 50% of women develop type 2 diabetes mellitus (DM) within five years postpartum. Women with prediabetes may progress to DM before their next pregnancy and will need preconception counselling. Early diagnosis of DM and timely intervention reduce long-term complications. The aim of the study is to assess the screening for DM in postnatal women diagnosed with GDM during recent pregnancy.

Materials and Methods: A retrospective audit was performed on women coded as O24.4 (Diabetes arising in pregnancy) who attended endocrine high-risk and obstetric clinics in June 2020. Data were collected from BruHIMS of any postnatal screening done such as oral glucose tolerance test (OGTT), fasting blood

sugar (FBS) and HbA1c.

Results: Fifty-one women were included, mean age 33.2 years; half had previous GDM. Postnatal screening for DM was done in 84% of women, most commonly at six weeks postnatal. FBS was used in 72.1%, OGTT in 25.6%, and FBS with HbA1c in 2.3%. Of those screened with FBS, 93.8% were normal, 3.1% had impaired fasting glucose (IFG), and 3.1% met criteria for diabetes. Among those undergoing OGTT, 54.5% showed impaired glucose tolerance (IGT), 18.2% showed normal OGTT and 9.1% were diagnosed DM.

Conclusions: Postnatal screening for DM is important for women previously diagnosed as GDM. FBS and OGTT were the most common screening tools and OGTT detected more prediabetes cases (IFG, IGT).

33: Audit on Amphetamine use among patients diagnosed with intracranial haemorrhage on Neuro-Intensive Care Unit.

Natasyha Isnani, Nurulhuda Manap, Chidananda Swamy.
Brunei Neuroscience Stroke & Rehabilitation Centre, PJSC, JPMC, Brunei Darussalam.

Introduction: Intracranial hemorrhage is one of the types of hemorrhagic stroke due to bleeding in the brain due to rupture of vessel. One of the commonest causes of intracranial haemorrhage is uncontrolled hypertension which can be due to many causes such as non-compliance to medication, stress and anxiety or drug induced. In our ICU, we found that there were several cases associated with positive for Amphetamine drug especially in young age group.

Materials and Methods: We conducted an audit to look for positive Amphetamine cases among patients diagnosed with intracranial hemorrhage admitted to Neuro ICU from January 2021 until December 2024.

Results: A total of 198 patients were admitted to Neuro ICU and diagnosed with ICH and 20 patients were found to be positive in Amphetamine in this group. 19 patients were male, and 18 out of 20 patients with positive Amphetamine were among the productive age. The outcome of this subgroup is low with only 1 patient passed away but the neurologic disability which is categorised by Modified Rankin Scale (mRS) showed that majority of them fell in category 4 and above. The higher the scale in mRS, the higher the severity of disability of the patient.

Conclusion: Several studies have shown that there is preponderance of haemorrhagic stroke associated with amphetamine use.

34: Role of sonographic optic nerve sheath diameter monitoring as an adjunct investigation in diagnosis and monitoring of patients with intracranial hypertension.

Anish George RAJAN, Sunithi MANI, Mathew ALEXANDER, Chee Shin YONG
Brunei Neuroscience Stroke & Rehabilitation Centre, PJSC, JPMC, Brunei Darussalam.

Introduction: Idiopathic intracranial hypertension (IIH) is a vision threatening disease characterized by increased intracranial pressure including headache and papilledema without any secondary cause. Looking at the utility of optic nerve sheath diameter (ONSD) as a good adjunct to invasive procedures like Lumbar puncture in cases where MRI is highly suggestive and for follow-up in monitoring treatment response in patients with IIH.

Materials and Methods: 31 patients were identified over a period of 24 months from Jan 2021 to December 2022 with headache, MRI with Gadolinium with features of raised ICT. But revised diagnostic criteria for idiopathic intracranial hypertension with demonstration of papilledema, is raised CSF opening (>25 cmH₂O). In all patients underlying structural lesions or sinus vein thrombosis were excluded by cranial MRI with venography. Ultrasound measurement of optic nerve sheath diameter in 11 patients was performed.

Results: Total number of patients with headache or MRI features of IIH were 31 cases. Clinical features of Idiopathic Intracranial Hypertension (IIH) were observed in 11 cases. 11 patients underwent lumbar puncture, 4 had raised opening pressure (>25 cmH₂O), of an average 28 cmH₂O. Further, ONSD performed in 11 patients, had an average value on each eye range (5.4 mm - 7mm) ~ 6.2mm.

Conclusion: ONSD measurement using USG is a simple, fast, non-invasive, and reliable method. Although lumbar puncture is standard for measuring intra-cranial pressure.

35: Integrating Thalassemia Screening into the Non-Communicable Disease Framework: A Public Health Perspective from Brunei.

NURIZZATI Amanina ADANAN, Dk Nurul MU'IZZAH Pg Hj MU'IZZUDDIN, Hajah SARINAH Haji AHMAD, Pg Hj ROSERAHAYU Pg Hj Idros, NOORAINUN Hj Mohd Yusof

Department of Laboratory Service, Ministry of Health & Haematology Unit, Department of Internal Medicine, RIPAS Hospital, Brunei Darussalam.

Introduction: Thalassaemia is a hereditary red cell disorder that requires lifelong treatment, placing significant demands on healthcare systems. Unlike lifestyle-related NCDs, thalassaemia prevention requires genetics-based strategies. Although up to 5% of people may carry the trait, Brunei currently has no population-wide screening program. This absence may contribute to undetected carriers and missed preventive opportunities.

Materials and Methods: This study reviews thalassaemia screening practices in countries with high disease prevalence,

focusing on cost-effectiveness, feasibility, and population health impact. The aim is to identify gaps and explore opportunities for adaptation and integration into Brunei's existing national NCD framework, to reduce disease incidence and improve cost efficiency.

Results: Evidence from other countries indicates that comprehensive screening programs can drastically reduce thalassemia incidence, enhance health equity, and yield long-term fiscal savings. In contrast, Brunei's current screening approaches, relying on blood parameters, Hb electrophoresis and HPLC lack comprehensive genomic testing, risking missed cases. Furthermore, genetic counselling services are not yet formally established within the MOH, creating a significant service gap if population-wide genetic screening is introduced. Screening and counselling should be paired to support informed decision-making. These limitations underscore the urgent need for proactive prevention.

Conclusion: Integrating population-based thalassemia screening and accessible genetic counselling into Brunei's NCD framework would help close existing service gaps and shift the national approach from resource-intensive treatment toward sustainable prevention. This genomics-based intervention offers a cost-effective, innovative public health strategy, with the potential to reduce disease burden, optimise resource allocation, and improve population health outcomes.

36: Yield of CT Pulmonary Angiogram in a Tertiary Care Specialist Centre in Brunei.

KHIN Thida Aung, Shyja A Sequeira, Rajveer S Beniwal, Kailash Patel, Anish G Rajan, Pavithra R Mannam, Arun K Gupta, Sunithi E Mani. Jerudong Park Medical Centre, Brunei Darussalam.

Introduction: Pulmonary embolism is common in patients undergoing therapy for cancer, neurological illnesses such as stroke and in patients undergoing cardiac procedures. Computed tomography pulmonary angiography (CTPA) is the investigation of choice for the diagnosis of pulmonary embolism (PE), although there are potential risks including contrast induced nephropathy and a high radiation dose. We studied yield of CTPA in diagnosing PE in patients admitted to cancer, neurology and cardiac specialty centres in Brunei. The clinical and laboratory parameters and predictors of possible PE are also evaluated.

Materials and Methods: Audit of CTPA in DDI JPMC from 1 July 2024 to 30 June 2025 was performed. The cohort was identified from RIS and PACS and clinical details accessed from hospital information system. The predictive factors were determined using simple logistic regression.

Results: 46 CTPAs were reviewed over the 1-year period.

9 PE positive cases were identified, and the yield was 19.5%. Patients with neurological conditions were the majority with suspected PE; yield of 18.5%. Males were common than females, both in the cohort as well as positive cases. Other parameters such as presence of DVT, D-dimer values and sepsis were also significant.

Conclusion: The yield of CTPA in diagnosing PE at our institution was 19.5% which is in keeping with acceptable range from literature (4.7-31%). Given the high mortality rate in patients with PE, this important investigation must be performed when suspected in this vulnerable population with Cancer, cardiac and neurological conditions requiring admission to hospital.

37: Draining the Brain, is Not the Solution for all Subdural Hematomas

WIN Htut Aung, LIM Tiong Jeng, ANISH George Rajan, DAWN Antony Jerudong Park Medical Centre, Brunei Darussalam.

Introduction: SIH is an underrecognized but increasingly identified cause of orthostatic headache and neurological dysfunction, often resulting from cerebrospinal fluid leaks without a clear traumatic or iatrogenic event.

Materials and Methods: This retrospective case series presents a comprehensive review of four patients diagnosed with SIH at BNSRC over a four-year period. All patients presented with severe orthostatic headaches, while associated symptoms included neck stiffness, nausea, tinnitus, and diplopia. Magnetic resonance imaging findings were consistent with SIH, demonstrating diffuse pachymeningeal enhancement, brain sagging, and prominent dural sinuses in majority of the cases. Notably, three patients had identifiable spinal CSF leaks on myelography, whereas one remained cryptogenic.

Results: Conservative management, including bed rest, hydration, and analgesia were tried out first. All four patients underwent epidural blood patching, with all experiencing complete resolution of symptoms but one patient had to have his subdural hematoma drained before administering the epidural blood patch as he worsened. No major adverse events were reported.

Conclusion: This series highlights the diagnostic challenges in SIH, emphasizing the need for high clinical suspicion and integration of imaging modalities for accurate diagnosis. Epidural blood patching remains an effective therapeutic intervention, particularly for patients with persistent symptoms and radiologically confirmed leaks. Our findings underscore the heterogeneity of clinical presentations and the need for strong clinical suspicion in young adults with bilateral SDH, advocating for further research into optimized diagnostic protocols and management strategies to enhance patient care and reduce morbidity associated with this condition.

38: Clinical, Radiological and Neurophysiological Features of Motor Neuron Disease.

HAZIRAH Shafri; DSNA Pg Tengah; Sunithi E MANI.
 Brunei Neuroscience Stroke & Rehabilitation Centre, PJSC, JPMC, Brunei Darussalam.

Introduction: Motor Neuron Disease (MND) presents significant diagnostic challenges, particularly in its early stages. The Brunei Neuroscience, Stroke and Rehabilitation Centre (BNSRC), established as the country’s sole tertiary neurosciences facility since November 2018, manages the majority of neurological cases nationwide. We aimed to characterize the clinical, radiological, and neurophysiological features of MND in Brunei Darussalam.

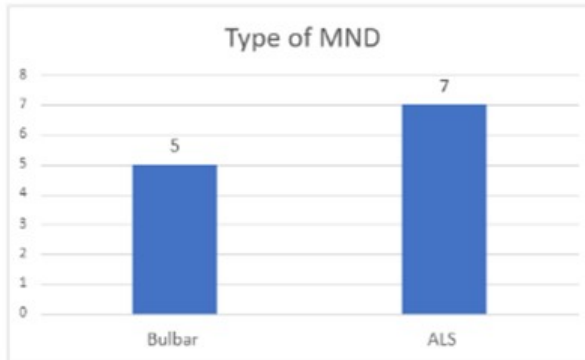
Materials and Methods: Data from 1 st January 2019 to 31 st December 2021 were collected from our MND registry. Clinical presentations, neuroimaging findings (MRI), and neurophysiological assessments including electromyography

(EMG) and nerve conduction studies (NCS) were extracted from electronic patient records.

Results: The spontaneous EMG activities accounted for more than 50% in all 4 regions: bulbar, cervical, thoracic, and lumbosacral regions. Positive MRI findings were found in five patients with CST hyperintensity, six with the motor band sign with three showing both.

Conclusion: We present the first case series on MND in Brunei Darussalam. The mean age of onset and clinical presentation were comparable with other Asian cohort studies. Neuroimaging and neurophysiological findings have provided useful supportive diagnostic information in our series. We hope that in future clinical practice in Brunei Darussalam, the inclusion of complimentary investigations as mentioned above could facilitate rapid diagnosis and treatment of MND.

Representative demographic data for MND patients in Brunei Darussalam from 1st January 2019 to 31st December 2021
Prevalence (per 105) 2.33
Incidence (per 105) 0.93
Mean onset age (years) 60.5
Gender ratio (M:F) 1.4:1



DAY 2 & 3: Saturday 11TH—Sunday 12TH OCTOBER 2025 (DELIMA HALL/ EAST CONCOURSE)

	PRESENTER	TITLE	POSTER NO.
39	Dk Nurolaini PG HAJI MUHD KIFLI	Knowledge and Medication Adherence Among Elderly with Hypertension at Two Health Centres in Brunei	68
40	IZZAH Hajidah Abdul Rajid	The Mediating Role of Binge-Watching Behaviour on the Contribution of Emotional Dysregulation on Depression among Adult Generation Z	69
41	Ahmad Zahid Md Daud	Workplace Mental Health Care Initiative	70
42	Siti HAZWANA binti Haris	Implementation Of Community Screening For Older People In Brunei Darussalam	71
43	Dr Alice YONG Moi Ling	Pilot Study: Carbohydrate Counting in Type 2 Diabetes Management	72
44	SUHEYLA Binti Haji Suhaili	Barriers To Utilising Screening Services In Brunei Darussalam: A Study On BruHealth Risk Assessment Module Users	73
45	SITI NOOR HAFIZAH BINTI MAJID	Evaluating Compliance with the Code of Responsible Marketing in Brunei Darussalam: Industry Engagement and Adaptation (An Observational Study)	74
46	Nur Izz Sophia ABDUL AZIZ	Quality Of Life In Patients With Diabetes Mellitus Attending Diabetes Clinics At RIPAS Hospital, Brunei Darussalam	75
47	Nur Izz Sophia ABDUL AZIZ	Fasting Safely: An Audit On Ramadan Risk Category And Documentation Of Fasting Advice In A Tertiary Diabetes Center	76
48	SITI MUNAWWARAH Awang Tarif	Perception Of Self-health Amongst Older People In Brunei Darussalam	77
49	Dayang NURAUNI Hamizah Binti Awang Mohamed Ali	SERVICE EVALUATION OF CAREGIVERS' FOR PERSONS WITH DEMENTIA SUPPORT GROUP, BRUNEI DARUSSALAM	78
50	MOHAMMAD ERMYN RAIKIMI BIN MOHAMMAD ERWANDEE	IMPACTS OF CHRONIC HEADACHES ON PJSC EMPLOYEES	79
51	NABILA binti Mohamad JAM ALI	The Indication Of Exercise and Physiotherapy Intervention For Patients Undergoing Chemotherapy; Preliminary Report.	80
52	ELEENA binti Awang Haji ANUAR	Exploring Educational Strategies Of Nurses In Creating Awareness Among The Public Regarding Stroke.	81
53	Nurhafizah binti HASNI	Rehabilitation Activities Augmenting Stroke Patient Recovery: Rehab Nurses Roles	82
54	Dk Amanina Nabihah Binti Pg MATSAH	National Hypo Box Implementation And Its Impact On Nursing Knowledge And Practice	83
55	Siti Khuzaiyah	Strengthening Adolescent Health Services: An ADDIE-Based Mentoring Model for PASHMINA in Central Java, Indonesia	84
56	Misa Lydianna Yulays Abdul Malik Minggu	Evaluation of Patient Awareness Regarding Peritoneal Dialysis Counseling in Brunei Darussalam	85
57	Dr Alice YONG Moi Ling	Eating Habits of People with Type 2 Diabetes during Ramadan	86

39: Knowledge and Medication Adherence Among Elderly with Hypertension at Two Health Centres in Brunei.

Norafina Syamimy Zunaidi, Goh Poh Hui, Chua Lah Kheng, Rosmah Shah, Nurolaini Kifli.

PAPRSB Institute of Health Sciences, Universiti Brunei Darussalam.
Department of Pharmacy, Ministry of Health, Brunei Darussalam.

Introduction: Hypertension is a long-term medical condition that can progress to serious health complications. Across all age groups, hypertension is more prevalent in elderly but there is limited information available in Brunei about their current hypertension knowledge and medication adherence. The objectives of the study were to explore hypertension knowledge, medication adherence and barriers toward medication adherence among elderly with hypertension.

Materials and Methods: This study was a prospective, cross-sectional study and was conducted at two health centres in Brunei: Berakas Health Centre and Pengiran Anak Puteri Hajah Muta-Wakillah Hayatul Bolkihah (PAPHMWHB) Health Centre from March 2020 to April 2020. The health centres and participants in this study were chosen using convenience sampling method. The hypertension knowledge, medication adherence and barriers toward medication adherence were assessed via “face-to-face” interview with participants using a structured questionnaire. All data were analysed using RStudio statistical software (Version 1.1.456).

Results: Only 32.6% (n=30) participants in this study were male. The mean knowledge score was 10.34 ± 2.4 . Around 16.3% (n=15), 66.3% (n=61) and 17.4% (n=16) participants had adequate, average and poor hypertension knowledge, respectively. Majority of the participants had more knowledge on risk factors and complications of hypertension. The mean score for medication adherence was 3.16 ± 0.9 . In this study, 77.2% (n=71) and 22.8% (n=21) participants were within high and medium adherence, respectively. No participants had poor adherence. Most participants reported no barriers toward medication adherence. However, nearly half of them (39, 42.4%) had suboptimal blood pressure control.

Conclusion: This study revealed that the knowledge of the participants regarding hypertension was average. Future studies should investigate other factors that could lead to poor blood pressure control among the elderly in Brunei.

40: The Mediating Role of Binge-Watching Behaviour on the Contribution of Emotional Dysregulation on Depression among Adult Generation Z.

IZZAH Hajidah Abdul Rajid.
University of Cyberjaya, Malaysia.

Introduction: With the rise of binge-watching behaviour

and depression among Gen Z, this study examined the relationship between emotional dysregulation, binge-watching behaviour and depression. It aimed to determine whether emotional dysregulation predicts both binge-watching and depression, and whether binge-watching mediates the relationship between emotional dysregulation and depression.

Materials and Methods: Using a quantitative, cross-sectional design, 136 Malaysian Gen Z individuals aged 18 to 27 were recruited through purposive sampling. Participants completed the Difficulties in Emotional Regulation (DERS), General Binge-Watching Scale (GBWS) and Patient Health Questionnaire-9 (PHQ-9). Their data were analysed using multiple linear regression and Hayes’ PROCESS Macro (Model 4, bootstrapping = 5000).

Results: The findings indicated that emotional dysregulation significantly predicted both depression and binge-watching. Specifically, limited access to emotion regulation strategies and lack of emotional clarity predicted higher depression scores, while difficulty engaging in goal-directed behaviours predicted both binge-watching and depression. However, binge-watching behaviour did not significantly predict depression, and no mediation effect was observed.

Conclusion: These findings suggest that emotional dysregulation is a more robust predictor of depression than binge-watching, highlighting the need to address emotion regulation difficulties in mental health interventions for Gen Z. The study also contributes to the existing literature by situating binge-watching within an Asian context and exploring its links to emotional health.

41: Workplace Mental Health Care Initiative.

Ahmad Zahid Md Daud.
Ministry of Health, Brunei Darussalam.

Introduction: Workplace mental health is a critical issue, given employment’s role in income, identity, and well-being. In Brunei Darussalam, there is currently no formal policy addressing mental health in government workplaces. High levels of stress, stigma, and lack of institutional support highlight the need for structured interventions aligned with Wawasan 2035’s vision of a high quality of life.

Materials and Methods: A one-week online survey was conducted in April 2022 among civil servants across ministries, receiving 60 responses. The survey included 10 questions exploring demographics, awareness, attitudes, workplace experiences, and suggestions related to mental health. Secondary sources included international best practices from Canada, Japan, and Singapore.

Results: Findings showed 68% of respondents were female, with most aged 32–45. Over half (51.7%) preferred to discuss mental

health with colleagues rather than superiors, reflecting stigma and limited trust in management. While 44.7% were aware of government services, most perceived workplaces as not prioritizing mental health. Major stressors identified were unmanageable workload (81.7%) and unreasonable time pressure (70%). Reported impacts included difficulty concentrating (75%) and decision-making problems (45%). Respondents recommended mental health training, in-house support units, role clarity, and fostering work-life balance.

Conclusion: This policy paper recommends two approaches: (1) developing a mental health workplace framework and (2) appointing trained mental health representatives in ministries. Drawing from international best practices, these measures aim to reduce stigma, promote resilience, and enhance productivity. Adoption of these policies will contribute to a healthier, more motivated workforce, supporting Brunei's long-term national goals.

42: Implementation Of Community Screening for Older People in Brunei Darussalam.

Siti Hazwana Haris, Siti Munwwarah Tarif, Nurul Athirah Tahir
Health Promotion Centre, Ministry of Health, Brunei Darussalam.

Introduction: The aging population is increasing rapidly worldwide due to longer life expectancies and decreasing birth rates, including in Brunei Darussalam; The World Health Organization (WHO) introduced the Integrated Care for Older People (ICOPE) guideline to focus on individual health, functioning, and well-being rather than solely on diseases. The aim is to lower the risk of losing intrinsic capacity among older people. One of the components in ICOPE is the community screening.

Materials and Methods: The Health Promotion Centre, has conducted community screening at Senior Citizen Activity Centres across Brunei Darussalam. The main objective was to identify older people at risk of declining intrinsic capacity. The ICOPE screening tool covers five domains of intrinsic capacity: cognitive, locomotor, vitality, sensory (hearing and vision), and psychological. The screening was conducted by trained healthcare professionals from HPC.

Result: That total of 138 older people was screened at 4 locations. Results showed over half of the participants showed good cognitive function, although some struggled with memory recall. More than 80% had no mobility issues, while 19% faced difficulties. Most had a normal appetite and no weight loss. Over 60% failed the visual acuity test, and about one-third had hearing problems. The majority reported no depressive symptoms or loss of interest in activities; however, 19% experienced low mood and 7% reported reduced interest in hobbies. Most had normal hand grip strength, with

16% showing strong grip. Urinary incontinence affected 25% of participants. Over 90% enjoyed safe home environments; most were financially stable, though 16% faced financial challenges. Social isolation was experienced by 21%, yet social engagement was strong, with 96% reporting no issues.

Conclusion: Overall, the community screening showed that most participants good physical, and psychological health, although some experienced sensory declines, especially in vision and hearing. Socially, the majority enjoyed safe homes, and strong social engagement, although financial strain and isolation were concerns for some.

43: Pilot Study: Carbohydrate Counting in Type 2 Diabetes Management.

LIN Hao Xiang, Nurhaime Haji Suhaimi, Siti Rohaiza Ahmad, Alice Yong Moi Ling

1. PAPRSB Institute of Health Sciences, Universiti Brunei Darussalam
2. Community Dietitian, Ministry of Health, Brunei Darussalam
3. Assistant Professor, PAPRSB Institute of Health Sciences, Universiti Brunei Darussalam
4. Consultant Endocrinologist, RIPAS Hospital

Introduction: Carbohydrate counting is a recognised dietary strategy for managing type 2 diabetes (T2DM), yet its uptake remains limited. In Brunei Darussalam, no prior studies have explored patient knowledge, attitudes, and practices related to carbohydrate counting.

Materials and Methods: A cross-sectional survey was conducted among adults with T2DM at health centre. A questionnaire adapted from Alberta Health Services Carbohydrate Counting Assessment evaluated six domains: carbohydrate recognition, quantification, food label interpretation, effects on blood sugar, attitudes, and application of carbohydrate counting.

Results: Twelve participants were recruited, predominantly female (58.3%) with secondary education (58.3%), and a mean age of 52.8 years. Knowledge scores varied: carbohydrate recognition (57.9%), blood glucose effects (47.9%), food label interpretation (27.8%), and carbohydrate quantification for foods (18.3%) and meals (18.8%). The overall average knowledge score was 43.6%, indicating significant gaps. Additionally, 91.7% had never practiced carbohydrate counting, and 41.7% were unaware of it prior to the study.

Conclusion: This pilot study highlights low baseline knowledge and a gap in knowledge. Tailored, culturally sensitive education may improve awareness and support self-management among adults with type 2 diabetes in Brunei.

44: Barriers to Utilising Screening Services in Brunei Darussalam: A Study on BruHealth Risk Assessment Module Users.

SUHEYLA Suhaili, NORZAWANI Ishak, NORHAYATI Kassim, Siti ZUHRINI Kahan.
Brunei Centre for Disease Control and Prevention, Ministry of Health, Brunei Darussalam.

Introduction: Non-communicable diseases (NCDs) are a major cause of morbidity and mortality in Brunei Darussalam. Early detection through the National Health Screening Programme (NHSP) is therefore crucial to improving management and preventing complications. To facilitate this, the Risk Assessment (RA) Module in the BruHealth app was introduced in July 2023 and leverages technology to enable and streamline registration. Despite this, there's poor uptake by eligible users. This study explores barriers preventing recommended RA module users from booking their appointments.

Materials and Methods: A cross-sectional survey targeting recommended RA module users who did not book cardiovascular risk factor, colorectal cancer or breast cancer screening appointments between August and December 2024. Invitations to complete a validated questionnaire were sent via BruHealth push notifications and SMS. Responses were analysed descriptively.

Results: A total of 294 individuals completed the questionnaires. Most respondents were female (74.5%), aged 40-49 years (43.5%), employed in the government sector (36.4%) and had tertiary education (45.9%). Thematic analysis identified practical barriers (n=268) as most frequent, followed by health concerns (n=217), lifestyle and health perception (n=139) and emotional barriers (n=89). Disaggregated analysis showed that the most common reasons were fear of results (n=97), uncertainty about screening locations (n=81) and concerns about harm or pain (n=72).

Conclusion: Practical and psychological barriers limit the NHSP uptake through the BruHealth app. In order to improve screening uptake, interventions must be considered to address these.

45: Evaluating Compliance with the Code of Responsible Marketing in Brunei Darussalam: Industry Engagement and Adaptation (An Observational Study).

SITI NOOR HAFIZAH BINTI MAJID, Hajah Norol-Ehsan Hj Abdul Hamid.
Health Promotion Centre, Ministry of Health, Brunei Darussalam.

Introduction: Aligning with World Health Organisation (W.H.O) recommendations on addressing childhood obesity, Brunei Darussalam introduced the Code of Responsible Marketing of Food and Beverages to Children (CoRM) in 2021. Implemented in phases from 2022, CoRM is a voluntary

guideline regulating food and beverage advertisements across various platforms to reduce children's exposure to unhealthy food marketing. After nearly four years of implementation, Brunei illustrates industry adaptation and compliance, modeling the balance between child health and marketing practices.

Materials and Methods: The study was conducted from 2022 to mid-2025. Themes such as industries' engagement and adaptation were identified and analysed with reference to relevant literature reviews, the CoRM guideline and monitoring from existing data.

Results: Billboards demonstrated the highest engagement and compliance with CoRM, with applications rising and acceptance rates reaching 76% by 2025, while rejections declined from 40% in 2022 to 4% in 2025. Radio and TV, however, showed slower adaptation, only responding from 2023 and continuing to broadcast advertisements during restricted hours. Nonetheless, some degree of non-compliance persisted across some platforms during ad-hoc monitoring. Leveraging on existing active legislation (Building Control (Advertisement, Billboard and Signboard) Regulations, 2016, enforced by Authority on Building Control and Construction Industry) may reflect the success compliance of billboard advertisements to CoRM. On the other hand, possible factors for non-compliance with CoRM may include limited enforcement mechanisms, lack of comprehensive radio/TV broadcast regulation, and commercial pressures to maximize advertising revenue.

Conclusion: The study showed a progressive increase in compliance with CoRM across four years of implementation, in particular the billboards, despite some degree of non-compliance persisted on some platforms. This reflects ongoing challenges in aligning industry practices to create conducive healthy food environment for children. Overall, CoRM in Brunei Darussalam represents a significant step toward protecting children from unhealthy food marketing, strengthening regulation and promoting accountability within the food and advertising industries.

46: Quality of Life in Patients with Diabetes Mellitus Attending Diabetes Clinics at RIPAS Hospital, Brunei Darussalam.

Nur Izz Sophia ABDUL AZIZ, Professor David @ Soo Que KOH, Lina @ Pui Lin CHONG.
Endocrine Unit, Department of Internal Medicine, RIPAS Hospital, Brunei Darussalam.

Introduction: Diabetes Mellitus (DM) is a chronic metabolic disorder influencing the health-related quality of life (HRQoL) of affected individuals. This study aimed to evaluate the HRQoL in patients with Type 2 Diabetes Mellitus (T2DM) on glucose lowering therapies, to assess the association between HRQoL and glycaemic control in patients with T2DM, and to identify possible relationship(s) between HRQoL and demographic characteristics.

Materials and Methods: A validated self-administered health questionnaire, EQ-5D-5L, was used to survey patients attending

diabetes clinics at the Endocrine Centre, Raja Isteri Pengiran Anak Saleha Hospital. A self-designed questionnaire was included to collect demographic and clinical details. Glycated haemoglobin (HbA1c) levels of patients were extracted from the electronic medical records (BruHIMS). Data analyses were performed using Rstudio Version 1.2.1335 (For Windows 7+).

Results: A total of 78 patients participated in the study. The mean (SD) age was 49.72 (\pm 12.77) years. There were slightly more women than men (52.6% and 47.4% respectively). Almost half (48.7%) of the patients have diabetes > 10 years and over half (52.6%) were on insulin therapy. Overall, 43.6% of the patients had a compromised health state with an EQ-5D-5L index score of less than one. The mean (SD) EQ-5D-5L index value of patients with T2DM was found to be 0.895 (\square 0.16). Pain/discomfort (37.2%) was the most commonly reported problem. No significant differences were demonstrated in the HRQoL between those on insulin therapy and those on oral medications. The level of education was significantly associated with HRQoL of patients with T2DM. However, there were no significant association observed for HbA1c, gender, duration of diabetes, ethnicity, marital status and income.

Conclusions: Almost half of the patients with diabetes in this study have reduced HRQoL which may impact on their self-management. Patients with lower education levels tend to have worse HRQoL. Healthcare providers should manage patients in a holistic manner as patients may need psychological and social input in addition to their usual clinical care.

47: Fasting Safely: An Audit on Ramadan Risk Category and Documentation of Fasting Advice in a Tertiary Diabetes Center

Nur Izz Sophia ABDUL AZIZ, Nurshazwani MAT SALLEH.
Endocrine Unit, Department of Internal Medicine, RIPAS Hospital, Brunei Darussalam.

Introduction: Fasting during Ramadan in individuals with diabetes mellitus may pose serious risks including hypoglycaemia, dehydration, and hyperglycaemic crises. The International Diabetes Federation and Diabetes and Ramadan (DAR) International Alliance released DAR guidelines in 2021, recommending tailored Ramadan counselling and risk stratification to reflect fasting complications risks; individuals are categorized as low (safe to fast), moderate (advised not to fast) or high risk (should not fast). This clinical audit assessed DAR risk category and fasting advice documentation in adult diabetes patients at Diabetes clinic, Raja Isteri Pengiran Anak Saleha (RIPAS) Hospital.

Materials and Methods: Adult diabetes patients attending

Diabetes Clinic, RIPAS Hospital from 1 December 2024 to 28 February 2025 (prior to Ramadan, March 2025) were randomly selected from appointment records. Exclusion criteria included pregnant patients, age<18 and secondary diabetes. BruHIMS electronic medical records were reviewed for demographic details, risk scoring components (including diabetes duration, HbA1c, medications (oral hypoglycaemia agent(s) and insulin), hypoglycaemia, acute and renal complications and self-monitoring blood glucose (SMBG) conducted) to allow for DAR risk score calculation, and documentation of fasting advice (safe/unsafe to fast and medication adjustment).

Results: Fifty-five patients (28 males, 27 females; 53 (96%) type 2 diabetes, 2 type 1 diabetes) were included. Majority had diabetes for \geq 10 years (85.5%), with an average HbA1c of 9.4% (15 with HbA1c<7.5%, 10 HbA1c 7.5-9.0% and 30 HbA1c>9%). Most common diabetes complications seen was proteinuria (37; 67.3%), followed by retinopathy (27; 49%), neuropathy (15; 27.3%) and 12 (22%) had prior ischemic heart disease or stroke. 67% were on insulin treatment. Hypoglycaemia was reported by 15 patients and 14 (25.5%) had conducted SMBG. Calculated DAR risk score categorized 38 patients (69.1%) as high risk (score>6), 11 (20%) moderate (score 3.5-6) and 6 (10.9%) low risk (score 0-3). 38 (69.1%) patients received fasting advice, of whom 32 were on medication adjustment (oral medications and/or insulin dose) only, 5 on both medication adjustment and documented unsafe to fast and 1 safe to fast.

Conclusions: In this predominantly high DAR risk cohort, 69.1% received appropriate fasting advice, mostly on medication adjustment, with only a small minority (10.9%) had safe/unsafe to fast documented, reflecting sound clinical practice. This highlights the need to strengthen DAR guidelines use and risk categorization in Ramadan counselling, to promote informed decision-making and ensure a safe fasting for Muslim patients.

48: Perception Of Self-Health Amongst Older People in Brunei Darussalam.

SITI MUNAWWARAH Tarif, Awatif Zuhrah Shamsuri, Nurul Athirah Haji Tahir, Siti Hazwana Harris.
1Health Promotion Centre, Ministry of Health, Brunei Darussalam
2Universiti Islam Sultan Sharif Ali, UNISSA

Introduction: In Brunei Darussalam, self-health is essential for older adults to maintain independence, prevent chronic illnesses and sustain a good quality of life. Empowering older individuals to take charge of their health supports national priorities and reduces the burden on families and healthcare systems.

Materials and Methods: The main objective of the survey is to evaluate the perception of overall physical and mental health status of the older people. A validated Short Form-36 Health Survey (SF-36) was adapted and distributed amongst older people in

Pusat Kegiatan Warga Emas. A total of 41 questions focusing on demographics and perceptions of health were self-administered with minimal assistance from research assistants. All data were collected and entered into Microsoft Excel for statistical analysis.

Results: A total of 109 respondents between 55 years to 80 years have completed the questionnaire. Majority of the respondents perceived that their current health status was good (51%) and 58% disagreed that their health will get worst. About 75% of the respondents answered they did not have any difficulties in doing physical activities and 65% mentioned they did not have any trouble in performing activities of daily living. However, 54% of older people said they experienced body pain over the past 4 weeks. When assessed about their perceptions on their mental health, 54% mentioned that they never felt sad over the past 4 weeks.

Conclusion: Older people in Brunei Darussalam perceived good about their physical and mental health. However, the respondents were not representative of overall older people in Brunei Darussalam due to the sampling method.

49: Service Evaluation of Caregivers for Persons with Dementia Support Group, Brunei Darussalam.

YVONNE Keen Lyn Lee, Dayang NURAUNI Hamizah Awang Mohamed Ali, Sheikh Haji Muhammad Abdul AL-AZIMIN Sheikh Haji Said. Jerudong Park Medical Centre, Brunei Darussalam.

Introduction: Family caregivers of persons with dementia are exposed to unique stressful situations and care demands. They are at risk of various physical and mental health burdens, yet formal services benefiting caregivers are lacking. The caregivers' support group program was thus formed with the goal of providing psychosocial support for caregivers, with the hypothesis that implementing this may help reduce perceived care burden.

Materials and Methods: This was delivered in the form of psychoeducation on dementia illness trajectory and caregiving skills as well as providing an emotional outlet for caregivers. Two separate cohorts (n = 15) had undergone the program, made up of family caregivers of persons with dementia.

Results: They completed informant ratings with mean scores indicating significant decline in cognitive functions observed in their family members with dementia (M = 4.01). On a scale measuring caregiver burden, the first cohort maintained a stable range (p > 0.05) at Low burden both pre (M = 1.16) and post program (M = 1.20) whereas the second cohort started off with an average of Moderate burden (M = 2.07) with post-program data being omitted due to effect of higher attrition rate (54%).

Conclusion: This calls for further evaluation of the program material and studies on determinants of care demands to better capture the caregiving journey. The implication of this evaluation is that a focus on creating safe space for emotional support may take precedence as the first stage in improving the quality of life for the caregivers, and subsequently, their relationships with the persons living with dementia.

50: Impacts of Chronic Headaches on PJSC Employees.

Mohammad ERMYN RAIKIMI bin Mohammed Erwandee, SHARIMAWATI Hj Sharbini and Pg DR HJH SITI NUR'ASHIKIN Pg DP Hj Tengah. PAPRSB Institute of Health Sciences, Universiti Brunei Darussalam. Brunei Neuroscience Stroke & Rehabilitation Centre, PJSC, JPMC, Brunei Darussalam.

Introduction: Numerous studies have highlighted workplace impact of chronic headaches. We aimed to investigate this in employees of PJSC, a medical specialist centre.

Materials and Methods: An online self-devised questionnaire taking five to seven minutes was distributed to 790 PJSC employees, clinical (624, 79%) and non-clinical (166, 21%). This consisted of headache characteristics and impact on work/personal life. No modifications were needed following questionnaire pre-test on volunteers.

Results: Only 144 (18%) fully completed the questionnaire and included in the analysis. Females were over-represented (66.7%) but similar to baseline population (63%). 57% were aged 25-34 years and 27.1% were 35-44 years (46% and 33% of baseline population respectively). Clinical workers made up 71.5% whilst non-clinical 28.5% (baseline 79% and 21% respectively). 62.5% were shift workers. Chronic headaches were reported at 11.7% and 14.6% for clinical and non-clinical staff respectively. Productivity loss due to headaches over the preceding month was reported to be minimal in 68% of respondents, mild or infrequent in 18%, moderate in 10.2% and severe in 3.9%. There were no statistical differences between clinical and non-clinical employees for chronic headaches (P=0.470) and productivity loss (P=0.616). Symptoms such as nausea and photophobia were reported in 66.4%.

Conclusion: Moderate to severe productivity loss due to headaches in 14.1% suggests an opportunity to improve headache management for both clinical and non-clinical staff. Possible reasons for modest response rate despite multiple reminders and extended submission deadline included holiday season distribution, other concurrent surveys and potential response bias – non-headache sufferers being less inclined to respond.

51: The Indication of Exercise and Physiotherapy Intervention for Patients Undergoing Chemotherapy; Preliminary Report.

Zuraihah Haji Abdul Rahim & NABILA binti Mohamad JAM ALI.
Jerudong Park Medical Centre, Brunei Darussalam.

Introduction: Physiotherapy aims to support patients in every phase of cancer diagnosis. Common chemotherapy side-effects include fatigue, chemotherapy-induced peripheral neuropathy (CIPN) and weakness. Exercise-based intervention may combat and prevent these side-effects (Macmillan Cancer Support 2017). Physiotherapy input is based on side-effects raised by patients undergoing chemotherapy.

Materials and Methods: Patients undergoing chemotherapy in Day Chemotherapy Unit (DCU), Jerudong Park Medical Centre (JPMC) are screened via JPMC Cancer Rehabilitation Screening Tool. Patients are enrolled in physiotherapy session in DCU Exercise Clinic for complaints of fatigue, swelling, CIPN, mobility and activities of daily living (ADL) issues.

Results: 137 patients were enrolled with mean age of 58 years old, ranging from 23 to 80 years old with 87 female and 50 male patients. The 6-minute walk test and 30-seconds sit to stand test were measured at baseline. Types of cancer vary from 54 patients with gastrointestinal cancer such as colon, rectal, sigmoid, stomach; 22 with gynaecological cancer such as cervix, ovary, endometrium, and uterine; 21 with breast cancer; 10 with lymphoma; and 30 with other types of cancer such as prostate, renal, liver, melanoma etc. Amongst 137 patients, 116 (85%) complaint of fatigue, 84 (61%) experienced CIPN, 58 (42%) mobility and ADL issues, and 25 (18%) complaint of swelling.

Conclusion: A significant number of patients undergoing chemotherapy in DCU experienced side-effects that could benefit from physiotherapy intervention. Fatigue was the most common complaint, followed by CIPN and mobility issues. These highlight the importance of integrating physiotherapy into cancer care to address the side-effects. However, further research is recommended to assess long-term benefits.

52: Exploring Educational Strategies of Nurses in Creating Awareness Among the Public Regarding Stroke.

ELEENA binti Awang Haji ANUAR.
Jerudong Park Medical Centre, Brunei Darussalam.

Introduction: Stroke is a leading non-communicable disease (NCD) and a major contributor to global disability and mortality. In Brunei Darussalam, the Brunei Neuroscience Stroke and Rehabilitation Centre (BNSRC) have been actively involved in public education efforts. Nurses play a central role in raising awareness about stroke risk factors, early recogni-

tion, and emergency response. This presentation explores nurse-led educational strategies aimed at increasing stroke awareness across diverse platforms and community settings.

Materials & Methods: Educational outreach was conducted through structured stroke awareness talks in secondary schools, sixth form centres, corporate companies, and ministries. Nurses also participated in radio interviews, television segments, and public events such as Pesta Buku 2024, engaging audiences across various age groups. Bilingual brochures were distributed, highlighting BNSRC's multidisciplinary services for stroke patients. The B.E. F.A.S.T. framework—locally adapted as PAN-TAS, was used to teach early stroke recognition. Patient success stories were shared to inspire hope and demonstrate the impact of timely intervention and rehabilitation.

Results: The outreach programmes reached over 1,000 participants. Audience feedback reflected increased awareness, emotional connection through patient stories, and appreciation for the clarity of information. Many expressed confidences in recognizing stroke symptoms and knowing when to seek help. Nurses reported improved engagement and trust from the community.

Conclusion: Nurse-led stroke education is effective in improving public awareness and response. Combining outreach, media, patient narratives, and feedback-driven engagement empower individuals to act promptly, reducing stroke-related morbidity and mortality.

53: Rehabilitation Activities Augmenting Stroke Patient Recovery: Rehab Nurses Roles.

Nurhafizah binti HASNI.
Jerudong Park Medical Centre, Brunei Darussalam.

Introduction: Stroke is one of the non-communicable diseases that lead to disability and mortality worldwide. It can result in mobility limitations, speech and language difficulties, cognitive impairments, and emotional disturbances. Thus, early rehabilitation is crucial in achieving better outcome. An integrated approach from a multidisciplinary team is essential in addressing the complex needs of stroke patients. The roles of nurses in Neuro Rehab ward include administering direct patient care, assisting with activities of daily living (ADLs) and providing education. In addition to all nursing care provided, this presentation will showcase range of rehabilitation activities provided during the weekends as part of nursing initiative in augmenting stroke patients recovery.

Materials and Methods: The Weekend Activity is an integral part of the rehabilitation program. Since its inception in 2020, this initiative has been led by nurses collaborating closely with hospital aides and caregivers. The objectives of this activity are to improve patients' physical and cognitive functions, foster social interaction and to enhance emotional well-being. The activities

offered include art and craft, music therapies, board games and light exercises. Family participation is also encouraged during these sessions.

Results: Patient and families feedback after 3 months of implementation of the initiative reflected increased patient and family satisfaction whereby most patients suggested implementing the activity permanently during the weekend. However regular and continuous feedback is needed to identify areas for improvement and facilitate communication between patients and health care providers.

Conclusion: The integration of weekend activities as part of the rehabilitation program in the Neuro Rehabilitation ward exemplifies the innovative approach to enhance patient outcomes. By fostering environments that promote social interaction and emotional well-being, patients can experience a more comprehensive recovery process.

54: National Hypo Box Implementation and Its Impact on Nursing Knowledge and Practice.

Amanina Nabihah MATSAH, Nur Husnina MATALI, Murdenillah MORNH, Norafezan SUHANI, Lina Pui Lin CHONG.

Endocrine Unit, Department of Internal Medicine, RIPAS Hospital, Brunei Darussalam.

Introduction: Hypoglycaemia is a condition which needs to be managed promptly and appropriately. Before June 2024, Brunei Darussalam did not have an easily accessible emergency kit to treat hypoglycaemia (Hypo Box) in healthcare facilities. The aim of this survey is to describe the impact of a national Hypo Box implementation on the knowledge and practice of nursing staff.

Materials and Methods: Two electronic surveys were disseminated among nursing staff prior to and 12 months after implementation of the Hypo Box in healthcare facilities nationwide. Data collected included place of work, prior training on hypoglycaemia, and knowledge on hypoglycaemia and its management. Data was analysed with paired Z-tests.

Results: There were 841 responses at baseline and 1134 responses at 12 months post implementation. Significant differences were seen in the proportion of correct answers on hypoglycaemia cut-off value (64.6% vs 71.1%, $p=0.008$), time to recheck capillary glucose level after hypoglycaemia (73.2% vs 87.3%, $p=0.000$), and on whether hypoglycaemia increases length of hospital stay (75.6% vs 79.0%, $p=0.007$) and mortality (83.4% vs 86.4%, $p=0.002$). More facilities were equipped with consumables to treat hypoglycaemia (56.8% vs 76.9%, $p=0.000$). Almost all respondents (>99%) reported documenting hypoglycaemia events in clinical notes. Of the details documented, a significant increase in documenting resolution of hypoglycaemia was reported

(72.1% vs 75.7%, $p=0.008$).

Conclusion: The national Hypo Box implementation demonstrated a positive impact towards nursing knowledge and practice on hypoglycaemia management which enhances patient safety. There is potential for further improvement through targeted education and effective policing of hypoglycaemia documentation.

55: Strengthening Adolescent Health Services: An ADDIE-Based Mentoring Model for PASHMINA in Central Java, Indonesia.

Siti Khuzaiyah, Ainun Muthoharoh, Nur Chabibah, Sandi Ari Susiatmi, Windha Widiyastuti

1. Universitas Muhammadiyah Pekajangan Pekalongan, Indonesia.
2. Universiti Brunei Darussalam.

Introduction: Pelayanan Remaja Sehat Milik Nasyyiatul Aisyiyah (abbreviated as PASHMINA) is a community-based adolescent health program consisting of six components: registration and body mass index (BMI) screening, hemoglobin testing, reproductive health counseling, psychological counseling, educational sessions, and nutritional counseling. This program was held to address the current problem among adolescent such as premarital sex, anemia, psychological issue, drugs, and other related problem. Despite strong enthusiasm from Nasyyiatul Aisyiyah, a Civil Society Organization working for women and adolescent, implementation of PASHMINA had not been optimal. This study aimed to develop and evaluate a mentoring model to strengthen PASHMINA implementation using the ADDIE (Analysis–Design–Development–Implementation–Evaluation) framework in collaboration with Muhammadiyah Higher Education Institutions.

Materials and Methods: A multidisciplinary team consisting of health science lecturers in collaboration with midwives from community health centers under the District Health Office, counseling teachers, and religious scholars conducted this study. In the analysis phase, needs and challenges in PASHMINA delivery were identified. The design phase produced a structured mentoring plan, followed by development of training modules, service flow, digital communication support, and education media. During the implementation phase in 11 branches Nasyyiatul Aisyiyah in Pekalongan Regency, 220 cadres and motivators were trained, 330 adolescents received services, equipment was loaned, and continuous mentoring was maintained via WhatsApp groups. The evaluation phase assessed independent implementation of PASHMINA branches and knowledge improvement among cadres and motivators.

Results: Eight of eleven branches (73%) successfully implemented PASHMINA independently. Cadres and motivators demonstrated knowledge improvements about adolescent reproductive health, adolescent psychology, and the PASHMINA program route. Mentoring support through Higher Education Institutions

was identified as a key factor enabling sustainability of adolescent health program.

Conclusion: The ADDIE-based mentoring model proved effective in strengthening the capacity of Nasyiatul Aisyiyah branches to deliver sustainable adolescent health services. Wider adoption of this model by higher education institutions nationwide could expand adolescent health service availability and improve adolescent well-being.

56: Evaluation of Patient Awareness Regarding Peritoneal Dialysis Counseling in Brunei Darussalam.

Misa Lydianna, Saidi Ismail, Raini Bujang, Hirnahwati Md Tahir, Maslina Kurus, Ellysha Shahrul Zaman, Al-Amin Jamain. Ministry of Health, Brunei Darussalam.

Introduction: Peritoneal dialysis (PD) counseling plays a crucial role in enhancing patient understanding and decision-making regarding kidney replacement therapy (KRT). However, there is limited evidence concerning patient awareness of PD counseling in Brunei Darussalam. This study aimed to assess patient awareness of PD counseling and identify the sociodemographic and clinical factors that influence PD acceptance.

Materials and Methods: A cross-sectional study was conducted among 62 adult patients with end-stage kidney disease (ESKD), including those not yet initiated on KRT and patients on hemodialysis (HD), across Brunei Darussalam. Data were collected using a structured questionnaire, the Patient Awareness Assessment on Peritoneal Dialysis, alongside sociodemographic data for subgroup analysis.

Results: Male patients aged 40 to 59 years, particularly those with employment, were more likely to accept peritoneal dialysis (PD) as a treatment option. Patients who had spouses and children present during counseling showed greater acceptance of PD compared to those without family support. PD nurses employed connection and disconnection techniques, clarified potential benefits and complications—including infection risks—and engaged in positive, patient-centered communication. Patients expressed high satisfaction with the clarity of the explanations and the approach taken by PD nurses. One PD nurse effectively used a whiteboard to connect counseling to patients' most recent blood results, which improved understanding and increased their willingness to consider PD.

Conclusion: Patient awareness and acceptance of peritoneal dialysis (PD) in Brunei Darussalam are significantly influenced by factors such as age, employment status, and the level of family support received during counseling sessions. The use of effective communication strategies by PD nurses—such as interactive demonstrations and personalised explanations that connect to clinical outcomes—has been shown to enhance patient understanding and increase their willingness to adopt PD. Additionally, improving structured counseling and actively involving family members may further support informed decision-making and encourage greater uptake of PD among patients with end-stage kidney disease (ESKD).

57: Eating Habits of People with Type 2 Diabetes during Ramadan.

Nur Amalina Alim, Ernie Asyura Hj Hassan, Rohaiza Ahmad, Alice YONG Moi Ling.

1: Institute of Health Science, Universiti Brunei Darussalam
2: Clinical Dietetic Unit, RIPAS Hospital, Brunei Darussalam
3: Endocrine Centre, RIPAS Hospital, Brunei Darussalam

Introduction: Fasting during Ramadan presents unique dietary challenges for individuals with Type 2 Diabetes Mellitus (T2DM). This study investigated carbohydrate intake, meal patterns, and glycaemic outcomes among local Muslim adults with T2DM.

Materials and Methods: A cross-sectional study was conducted between February and March 2025 involving 40 patients (aged 18–70) from the Endocrine Centre, RIPAS Hospital. Participants completed a self-administered questionnaire covering eating habits during Sahoor, Sungkai, post-Sungkai, and non-fasting periods. HbA1c profiles were extracted from clinical records.

Results: The mean age of participants was 49 years; 52% were female, and 98% were Malay. Eating out was prevalent (92%), and 40% relied on others for meal preparation. Most ate during Sahoor (82.5%) and all ate at Sungkai, primarily eating rice and dates. Sahoor was typically eaten between 4–5am and Sungkai before Maghrib (69%). Sungkai portions were largest, while post-Sungkai consisted of sweet drinks and fried foods. Median HbA1c was 8.9%, with marginally better control among retired and educated individuals. No strong correlation was found between sociodemographic factors and glycaemic outcomes.

Conclusion: Ramadan alters eating routines and carbohydrate intake among T2DM patients, highlighting the need for tailored nutritional advice to support glycaemic control during fasting.