

2018 Australasian Neuroscience Nurses' Association Annual Conference Abstracts

On behalf of the Executive of the Australasian Neuroscience Nurses' Association (ANNA) it was my pleasure to welcome the delegates, presenters and sponsors to the 2018 ANNA Annual Conference at the Sheraton Mirage Resort on the Gold Coast.

The Annual Conference provides an opportunity to promote the exchange of scientific ideas and knowledge, and to strengthen relationships with colleagues. We were once again joined together with the Neurosurgical Society of Australasia to share some of their scientific sessions, including the Eccles Lecture delivered by Professor Neville Knuckey and the Jamieson Memorial Oration delivered by Professor Anil Nanda. Our invited speakers included Dr Ruth Mitchell, Nobel Prize Winner 2017, neurosurgeon Dr Peter Lucas and Ms Sharon Bale, headache specialist nurse.

Abstract submissions received were of a high quality and provided a very engaging scientific program for delegates to experience.

We would like to extend our sincere appreciation to our sponsors, Novartis and Pfizer. We hope you enjoyed to the 2018 Annual Conference and look forward to seeing you in Wellington New Zealand in 2019.

With kind regards
Jeanne Barr
President
Australasian Neuroscience Nurses' Association

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Diet therapy for adults with refractory epilepsy -a review of the evidence

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Epilepsy is a chronic neurological condition that affects 0.5% -1% of the world's population (WHO 2009). Epilepsy is described as a syndrome of recurrent unprovoked seizures, which is not limited to one disease but a group of disorders (WHO 2009).

Refractory epilepsy is described as a failure to control seizures despite adequate use and trial of 2 antiepileptic drugs (AED's) (Kwan et al. 2010). Epilepsy that is not controlled by AED's is reported to occur in approximately 30% of people newly diagnosed with epilepsy, and the percentage of people likely to become seizure free with multiple trials of AED is less than 20% (Luders 2008). People with epilepsy experience significant negative impacts on their social, cognitive and physical functioning that contributes to reduced quality of life (QoL) and increased mortality when compared to the general population (Mohammed et al. 2012).

Diet Therapy involves the modification of the

ratios of carbohydrate, fats and proteins in a person diet to induce ketosis. The build up of ketones within the bloods is believed to impact the onset, propagation and cessation of seizure activity in the brain (Kossoff et al. 2011). The exact mechanism is unknown but the use of diet therapy for treatment of epilepsy in children has shown to be efficacious.

Diet therapy in adults with refractory focal epilepsy is an alternative therapeutic option often not considered. The purpose of this review is to discuss what the current evidence base for the use of diet therapies in adults with refractory epilepsy.

Getting the stockings right! Improving evidence based practice for neurosurgical patients

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Venous Thromboembolism (VTE) is one of the most common complications following a surgical procedure and its prevention and management is an important aspect of care particularly in those patients who are classed as high-risk patients (Assareh, et al, 2014).

Neurosurgical patients are at a high risk of developing (VTE) for various reasons including; long duration of surgery, long immobilization times post-surgery and possible neurological deficits from complications, which can influence mobility (Lukassen et al., 2014). VTE prophylactic reduces the risk of DVT and Pulmonary Embolism (PE) by about 50 percent (Mitchell et al., 2015). Collins et al. (2015) discusses that adherence to the VTE prevention guidelines are not embedded into routine clinical practice internationally or in Australia.

The aim of this study is to determine; (i) the current practice of Neurosurgical nurses in regard to VTE prophylaxis (GCS – Graduated Compression Stockings) in this patient group; (ii) what improvements are required from the identified issues/concerns to optimize clinical practice and (iii) how may such improvements reduce the incidence of potential VTE events.

This study will be an exploratory and observation study using a mixed methods approach combining quantitative and qualitative research processes using a survey (patients and staff), focus groups and audit tool. The analysed results (audit and surveys) will be fed back to nursing staff at focus groups with the aim to explore the enablers and barriers to policy compliance and evidenced based nursing practices around GCS management.

The results will be further explored and presented at future focus groups with the aim of developing quality improvement projects. The study has ethics approval and is currently being conducted on the neuroscience ward and unit at a major teaching hospital in NSW.

Medulloblastoma: a complicated story with new technology and hope as the game changers

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DOI: 10.21307/ajon-2017-012c

Medulloblastoma is an uncommon tumour in adults with incidence rates of 0.6-1 per million or approximately 1% of all cranio-spinal tumour presentations. In this case study we follow the complicated journey of a man and his family from diagnosis, treatment and rehabilitation to discharge.

During his journey the patient, his family and the healthcare team faced many challenges

including rare cranial radiotherapy side effects, CSF infection, ventriculoperitoneal shunt malfunction and social impacts. Finally a B-Braun sensor reservoir with ProGav 2.0 set at 0mmHg with ProSa set at 2 mm Hg was implanted, the first time in Australia.

The presentation will focus on this new technology and explore the theme of hope in long term critically ill neurosurgical patients as for this man and his family these made a difference.

G-forces, the brain and Newton's Law

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DOI: 10.21307/ajon-2017-012d

The thrill to go fast and push boundaries is something that many seek. From John Stapp's rocket sled at Edwards Air Force Base in the late 1950's to today's Formula 1 drivers, the "need for speed" is broadcast across TV screens weekly. So too are the horror stories of crashes, many at over 300km/hr. How does the brain stand up to speed and G-forces? Are Newton's Laws current today?

There has been much attention in the general press on the possibility that high G-force roller-coasters are inducing brain injury in riders. However, research today does not wholeheartedly support this, rather the risk of brain injury from a roller-coaster is not in the rides, but in the rider – caused by previously undetected brain conditions. That said, there is some truth that high G-forces do affect the brain at a chemical and structural level.

This talk will discuss the mechanism of head injury at speed and generally what Newton's Law means in a neurological setting in today's world. Formula 1 racing and roller coaster rides will be evaluated within a neuroscience context.

Keywords: Concussion, head injury, Newton's Law, Formula 1, roller-coasters.

Evaluation of Parkinson's disease passport booklet

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DOI: 10.21307/ajon-2017-012e

Parkinson's disease (PD) is a complex and multifaceted disease. Studies have shown that people with Parkinson's (PWP) who are hospitalised are more likely to develop comorbidities such as delirium, urinary tract infections, reduced mobility, increased risks of falls, medication errors, worsening of Parkinson's symptoms and subsequently experience an increased length of hospital stay.

The PD passport is a brief but comprehensive resource booklet designed to assist the care of the person with Parkinson's disease (PWP) from a medical, nursing and carer/patient's own perspective. The passport includes details of Parkinsonian symptoms, medication regimen and other aspects of care that is specific to the PWP.

Aim: The aim of the study is to determine the impact of a personalised Parkinson's disease passport on the care and management of a PWP admitted to an Australian hospital.

Method: This is a qualitative pilot study involving two cohorts of 10 patients in each arm. One cohort of 10 patients with PD admitted to hospital will be studied without the provision of the PD Passport and a second cohort will be studied with the PD Passport provided. Separate qualitative questionnaires was provided to the patient/carer, doctors and nurses to measure their experience in caring for the PWP during their admission.

Results: No statistical significance was elicited in patients' doctors' and nurses' experience. Patient experience was the closest to achieving statistical significance out of the three groups. Cognitive impairment also detected in 85% of the subjects.

Conclusion: Contrary to expected outcomes, the results of this study suggest that the use of a Parkinson's passport does not significantly impact the patient's care when admitted to hospital. Further prospective study with a larger

The brain on fire - anti-NMDAR encephalitis

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DOI: 10.21307/ajon-2017-012f

Anti-NMDA receptor encephalitis is a rare disease that occurs when antibodies produced by the body's own immune system attack the N-methyl-D-aspartate receptors (NMDAR) in the brain (Anti-NMDA Receptor

Encephalitis Foundation, 2018).

For a relatively rare condition, Toronto Western Hospital (TWH) noted a staggering four cases of anti-NMDA receptor encephalitis in 2016 alone.

Patients develop a multistage condition that progresses from psychosis, memory deficits, seizures, respiratory difficulties, abnormal catatonic movements and language disintegration into a state of unresponsiveness (Dalmau, Lancaster, Hernandez, Rosenfeld and Gordon, 2011).

This case study will focus on the pathologies and medical journeys of three female patients diagnosed with anti-N-methyl-D-aspartate receptor encephalitis at TWH.

This presentation will discuss the unique presentations of each of the cases and the individualized nursing care plans developed to address the unique needs of this patient population.

More specifically, it will highlight the importance of ensuring patient and staff safety in the development of these care plans. It will also discuss the need for implementing ongoing evaluations of these nursing care plans to address the developing needs of patients as they proceed through the diverse and complex phases of the condition.

Building evidence to support best practice specialist nursing services for people with Parkinson's disease in regional communities: an integrative literature review

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DOI: 10.21307/ajon-2017-012g

Background: Parkinson's disease is a chronic, neurodegenerative, incurable, complex and disabling neurological condition. In Australia and worldwide, the prevalence of Parkinson's compared to other neurological conditions is exceeded only by dementia.

The median time from onset to death is 12.2 years, and in Australia, an estimated 89% live most of those years at home, with the remaining 11% living in residential facilities. As our population ages prevalence is increasing and is higher in rural and remote areas. Disease progression is a major driver of costs and carer burden due to increasing dysfunction in motor and cognitive capacity, leading to increasing risk of hospital and resi-

dential care admission and a need for specialist services. Integrated, specialist nursing care is largely absent in regional communities, leading to lower health related quality of life and poorer management of the condition compared to urban areas.

Method: A four-stage integrative framework guided the literature review undertaken to identify evidence-based models of care specifically focused on the role of the community based specialist neurological nurse caring for people with Parkinson's.

Results: Fourteen models of specialist nursing care from five countries are included. Best practice outcomes focused on improving quality of life through nurse-led clinics, early intervention strategies, specialist neurological assessment, technological advances such as telemedicine, multidisciplinary and interdisciplinary collaboration, support for family and carers and greater in-reach into acute facilities.

Conclusions: Specialist primary nursing services that maximise the scope of the nursing role, are multidisciplinary and use the latest technological advances are more likely to be sustainable and cost effective for service providers and people with Parkinson's in regional communities.

Mood screening in acute stroke

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DOI: 10.21307/ajon-2017-012h

Background: Post stroke depression (PSD) is prevalent in approximately in one third of all stroke survivors. It is associated with increased length of stay, poor functional outcome, higher risk of recurrent strokes and increased risk of mortality.

In 50% - 80% of cases, PSD is often undetectable and undertreated. It is important in the care of stroke patients to assess their mood for early detection and intervention management of depression. The clinical guidelines for stroke recommends all patients be screened for depression using a validated tool. However our current practise does not routinely screen stroke patients for depression. This has inspired our nursing team to develop a mood screening protocol as part of the acute stroke care for early detection and management of depression.

Method: Senior acute stroke unit nurses developed a mood screening protocol that will be administered by nurses for stroke patients. We reviewed several screening tools along with consultation with a Neuropsychiatrist, the Patient Health Questionnaire 2 (PHQ 2) and Patient Health Questionnaire 9 (PHQ 9) were chosen because they are relatively easy to use, requires very little time to administer and involves minimal training. The Speech Pathologist was consulted to modify the tools for stroke patients with aphasia.

Results: The mood screening protocol was trialled for 3 months. The use of the PHQ 2 and PHQ 9, including the modified version for aphasia were easy to use and able to incorporate in patient assessments. In summary, 26% of the ASU admissions were referred for formal assessment of depression post stroke.

Conclusion: Following review of the mood screening protocol in the ASU, it is now integrated into the nursing care plans and is also been added to the electronic patient stroke assessment forms.

Journey of a novice research team

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DOI: 10.21307/ajon-2017-012i

Background: Current pain management strategies for post-operative craniotomy patients are limited due to concerns about the effect of stronger analgesic agents on level of consciousness and respiratory status. There was an opportunity for practice change to optimise the care & experience of patients undergoing elective craniotomy. Intravenous patient controlled analgesia (PCA) fentanyl was introduced for this patient cohort.

Aim: The aim of this presentation is to provide an overview of the journey taken by the research team from inception to commencement of the study.

Methods: Extensive consultation was undertaken with key stakeholders during the planning phase. A number of challenges were experienced which required a tenacious, determined & cohesive approach from the research team. These challenges included gaining support from Neurosurgeons, allocating time to do the research whilst balancing clinical & administrative roles & having little funding.

This mixed methods study saw patients in the treatment group interviewed 3 times during their patient journey & administered questionnaires; patients in the non-PCA group were interviewed once. Recruitment & patient tracking therefore required an organised, systematic approach; this approach also applied to the extensive review of patient medical records.

Thematic & narrative analysis of the qualitative data was chosen with team members contributing to the analysis of each transcript. The potential impact of reflexivity during this analysis phase was acknowledged given the neurosurgical nursing background of each researcher.

Preliminary results indicate that the use of PCA fentanyl in this patient cohort is safe with patient satisfaction noted.

Conclusions: This research study required a coordinated team approach. The benefits to patient care are rewarding for the effort & time expended.

Purposeful collaboration - enriching lives for people with Parkinson's disease

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DOI: 10.21307/ajon-2017-012j

Patients with Parkinson's disease have more admissions, longer admissions, more complications and worse outcomes compared to similar patients without PD.

Aims: For patients with Parkinson's Disease >75%: Identified <4 hours of admission; Receive on-time medications; Carer satisfaction with medication management.

Method: Emergency Department patient tracking board icon; Earlier referral to Pharmacists; contraindicated medications avoided; Medications administered on-time; Process developed alternatives to oral route for medication administration; Clinical guideline for care of patients admitted to hospital.

Results: 19% increase medications on-time; 89% reduction in contraindicated medication prescriptions; Reduced length of stay in hospital. 80% patients or carers were very satisfied with their medication management.

Conclusion: Patient safety increased along

with the experience of patients and carers. The care experience and clinical staff are more satisfied. Aims met.

Functional neurological disorders nursing management

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DOI: 10.21307/ajon-2017-012k

Functional neurological disorders (FND) comprise of somatic symptoms such as black-outs, paralysis, abnormal movements and weaknesses that suggest the presence of an underlying neurological condition however none of the symptoms are explained by disease. FND is caused by a complex combination of biological, psychological and social factors on the brain (Hallet, M. 2012).

Common functional disorder symptoms include limb weaknesses, dissociative attacks and chronic pain. It is estimated that between 2 to 33 per 100,000 people suffer dissociative attacks and 90 people per 100,000 suffer from functional weakness (Stone et al, 2009). Functional weakness interestingly has a similar prevalence to multiple sclerosis. Functional symptoms can be difficult to diagnose due to the nature of the symptoms as well as patient background and history. This presents many problems for health practitioners in the diagnosis, treatment and rehabilitation phases of care.

The cost of medically unexplained symptoms (MUS) is estimated to cost the NHS in England £18 billion per year (NHS 2015). An Audit by the NHS estimate FND patient's average 5 ward admission, 6 accidents and emergency admissions and 24 days length of stay in hospitals between 2009-2012 (Adjei, M. Coebergh, J. A. 2014).

This presentation aims to raise awareness of FND by providing an insight into the diagnosis, treatment and rehabilitation of the disorder. The presentation will discuss nursing strategies used to help treat and progress patients through therapy and explore the stigma surrounding FND and how it can be reduced to deliver effective treatments and provide the patients with evidence based care to ensure better outcomes and reduce hospital length of stays. There will be two case presentations at the end discussing poor and successful outcomes.

Low-fat versus ketogenic diet in Parkin-

son's disease: a pilot randomised controlled trial

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DOI: 10.21307/ajon-2017-012l

Background: Preliminary evidence suggests that dietary manipulation may influence motor and non-motor symptoms in PD, but conflict exists regarding the ideal fat to carbohydrate ratio.

Objectives: We designed a pilot randomized controlled trial to compare the plausibility, safety, and efficacy of a low-fat, high-carbohydrate diet versus a ketogenic diet in a hospital clinic of PD patients.

Methods: We developed a protocol to support PD patients in a diet study and randomly assigned patients to a low-fat or ketogenic diet. Primary outcomes were within- and between-group changes in MDS-UPDRS Parts 1-4 over eight weeks.

Results: We randomized 47 patients, of which 44 commenced the diets and 38 completed the study (86% completion rate for patients commencing the diets). The ketogenic group maintained physiological ketosis. Both groups significantly decreased their MDS-UPDRS scores, but the ketogenic group decreased more in Part 1 (low-fat group: -0.99 +/- 3.63 points vs ketogenic group: -4.58 +/- 2.17 points, $P < 0.001$), with the largest between-group decreases observed for urinary problems, pain and other sensations, fatigue, daytime sleepiness, and cognitive impairment; there were no between-group differences in the magnitude of decrease for Parts 2-4. The most common adverse effects were excessive hunger in the low-fat group and intermittent exacerbation of the PD tremor and/or rigidity in the ketogenic group.

Conclusions: It is plausible and safe for PD patients to maintain a low-fat or ketogenic diet for eight weeks. Both diet groups significantly improved in motor and non-motor symptoms, however the ketogenic group showed greater improvements in non-motor symptoms.

Managing migraines with a nurse

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DOI: 10.21307/ajon-2017-012m

Managing migraines with a nurse gives the patient an opportunity to sit down with a clinician to take the time to discuss the signs and symptoms of their condition. This allows the Multidisciplinary team to have a clearer diagnosis of the type of the patient's headaches and migraines.

The patient who has Migraines is often left feeling like nobody understands their condition; the nurse who will empathetically guide the patient through their migraine journey can have an enormous impact on the patient's life. In the past migraine has often been disregarded by the general population and even medical professionals at time with stigmas attached to their condition.

Nurses can play a significant role in migraine management by offering the patient ongoing support, empathy and advice. Many patients benefit from information about over the counter medications, prescription medications, management of their triggers and the adjustment of their lifestyles and early effective treatment to assist with their management of migraines.

During this discussion we will cover the role of the Headache specialist nurse in a clinical role working alongside a multidisciplinary team in a private setting.

Collaborative multidisciplinary approach to improve door to needle time for hyper acute stroke treatment

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DOI: 10.21307/ajon-2017-012n

Thrombolysis and endovascular treatment for patients with ischaemic stroke is a time critical therapy. Delay in treatment increases mortality, worsens disability and reduces efficacy of treatment.

This quality improvement project was conducted at a tertiary referral facility in Sydney. Collaboration with health professionals from all disciplines (e.g. Emergency, Neurology, Neurointerventional radiology and Intensive Care) were included to outline roles for team members and implementing an emergency stroke call out system.

Prospective data was collected before implementation (July 2014-March 2016) and after implementation (April 2016-December 2017).

To co-ordinate and achieve early notification of multidisciplinary team for stroke thrombolysis to improve thrombolysis rates and door to needle time. A Neurointerventional radiology (INR) CNC was appointed for a 6 month period to examine work processes and patient's safety and care journey.

Processes:

- 1) Pre-hospital identification of patient requiring transfer and treatment in a tertiary hospital.
- 2) Examining triage processes and requirements of care from an ED perspective.
- 3) Co-ordination of teams attending 'Stroke page' and their responsibility.
- 4) Patients clinical treatment destination location.

Descriptive statistics were performed; medians (IQR) for continuous data and frequencies/percentages for categorical data. Differences for continuous data were explored using the Mann-Whitney U-test and categorical data were explored using the Pearson's chi-square test.

There were no group differences in patient characteristics; the sample was predominantly male with mild to moderate stroke severity and median age 78 years. There was a trend to an increased thrombolysis rate but this was not statistically different; before 152 of 589 (25.8%) vs after 209 of 725 (28.8%) patients received thrombolysis ($P=0.22$). The difference in median time to treatment was significant; 65.5 (45.0-84.0) vs 47.0 (30.3-65.0) min, $P<0.001$, respectively.

Implementation of committed multidisciplinary stroke team using an emergency stroke call out system resulted in a trend to improved thrombolysis rate and time to treatment.

Impact on patients with Obstructive Sleep Apnoea (OSA) of spinal precautions: is it time to change practice?

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 DOI: 10.21307/ajon-2017-012o

Obstructive Sleep Apnoea (OSA) occurs in approximately 5% of the population. In the surgical population the impact of undiagnosed OSA is gaining a greater understanding although the impact on patient outcomes in the neurosurgical population has not been investigated.

This case study will outline the journey of a patient for whom the combination of undiagnosed OSA and a C1# proved fatal. The learnings from both a literature review on spinal precautions and the case review process will be shared.

The intended outcome is to increase knowledge and awareness of the impact of OSA along with the need to alter our care for this at risk population. The evidence for how we alter our care, however, is not currently available.

Malignant middle cerebral artery infarct: an integrated clinical case presentation and literature review

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 DOI: 10.21307/ajon-2017-012p

Ischaemic stroke accounts for 87% of all strokes. It occurs when a clot or a thrombus blocks a blood vessel, cutting off blood flow to a part of the brain. If large proportions of a hemisphere are affected, space-occupying oedema may result leading to rapid neurological deterioration, irreversible coma and death. Malignant middle cerebral artery infarction (MMCAI) is a life-threatening form of ischaemic stroke involving the whole middle cerebral artery (MCA) territory and comprises up to 10% of all MCA territory infarctions. Mary was a 62 year old women found collapsed at home by her daughter who after unsuccessful treatment with ECR later underwent surgical decompression. Mary made a good functional recovery returning home to live independently. This case highlights the vital role the stroke nurse specialist and critical care nurse play in the assessment and treatment of this typical patient who experienced a MMCAI and underwent complex interventions.

Treatment with intravenous tissue plasminogen activator for acute ischaemic stroke after reversal of Dabigatran and Idarucizumab: a case study

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 DOI: 10.21307/ajon-2017-012q

Treatment options for anticoagulated patients presenting with ischaemic stroke are limited. Off-label use of idarucizumab to rapidly reverse the anticoagulant effect of dabigatran may ensure eligibility for thrombolytic therapy with recombinant tissue plasminogen activator (rtPA). This case describes a 77 year-old previously independent man of Anglo-Saxon origin who presented to hospital 89 minutes following sudden onset of right sided hemiparesis, dysarthria and facial palsy. Significant history included Atrial Fibrillation (AF) and previous right-sided cortical stroke. Medication reconciliation revealed he was taking dabigatran 150 mg twice a day, the last dose – 179 minutes prior to presentation.

An urgent non-contrast computed tomography (CT) scan showed no new infarct or haemorrhage. 60 minutes from hospital arrival a decision was made to give idarucizumab to reverse the anticoagulant effect of dabigatran, in the absence of any contraindication, the patient was successfully treated with intravenous (IV) rtPA. Both rtPA and idarucizumab were tolerated with no adverse outcomes.

At discharge, the patient's new stroke symptoms were completely resolved. In this case, the reversal of dabigatran using idarucizumab was safe and successful with no rtPA adverse events. Clinicians should consider dabigatran reversal for those who are otherwise eligible for thrombolysis. Further reporting of patients who receive this therapy will be of use in the absence of trial evidence. Additionally, the role of the stroke nurse was vital in ensuring that team members were working together towards providing quality hyperacute stroke care for this patient.

Australia's first patient with Huntington's Disease treated with Deep Brain Stimulation surgery

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DOI: 10.21307/ajon-2017-012r

Objectives: 1. Outline the patient's progress during the first 12 months following deep brain stimulation (DBS) surgery to treat chorea secondary to Huntington's disease. 2. Describe the role of the Movement Disorder Nurse Practitioner.

Materials/Methods: Baseline clinical presentation, the screening process for surgical suitability and pre-operative assessments will be

overviewed. The surgical technique for insertion of bilateral globus pallidus interna (GPi) electrodes will be described, highlighting the difficulties due to atrophy of the target structure. Multi-disciplinary team reviews during the first twelve months, including stimulation parameter adjustments, will be explained. The reduction in chorea movements will be demonstrated through progressive video assessments.

Results: Four months after DBS the generalised chorea movements reduced by 56%. There was a positive impact on the patient and carers quality of life. Stimulation induced side effects, including bradykinesia and other potential complications of DBS, will be presented.

Conclusions: There was a reduction in chorea movements and a marked positive impact on quality of life following GPi DBS surgery in a carefully screened person with Huntington's Disease.

Poster Abstracts

Long term evaluation of clinical and radiological outcomes after anterior cervical discectomy and fusion, using a porous titanium cage and an anterior plate (work-in-progress)

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DOI: 10.21307/ajon-2017-012s

Anterior cervical discectomy and fusion (ACDF) has been used since the 1950's to relieve symptoms associated with cervical disc diseases. Developments to reduce complications have included the use of intervertebral cages and the optional use of anterior cervical plates. Titanium, PEEK, and carbon fiber are the materials leading the technical advances in cage design.

Recently, porous titanium has shown favourable osteoconduction properties, with preliminary results from cervical cages (EITGmbH) reporting fusion in 80% of ACDF patients at 12 months. Despite these developments, no single cage/plate combination is considered the gold standard. This study aims to provide information on the long term use of porous titanium cervical cages used in combination with a plate, by reporting on the clinical and radiological outcomes of ACDF patients over 5 years.

A prospective cohort study of 50 1-2 level ACDF patients with a 5 year follow up period, commenced in 2017. The study will evaluate the clinical and radiological outcomes of ACDF surgery, with post-operative follow-ups at 6 weeks, 3, 6 and 9 months, then annually for 5 years. Clinical measurements include the assessment of pain (VAS), disability (NDI), general health (SF36), and surgical data. X-rays at each follow-up and a 12 month CT scan will be used for radiological assessments including the evaluation of fusion, cage subsidence/complication, global cervical angle, and Adjacent Segments Disease.

Porous titanium cages have shown promising initial results in ACDF patients. This study will enable further evaluation of these cages by providing comprehensive long term results on the clinical/radiological outcomes of ACDF patients. Additionally, analysis of this cohort to historical controls that have used alternative cage/plate combinations will contribute towards the development of a gold standard ACDF technique

The creation and evolution of a nurse led first seizure clinic

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DOI: 10.21307/ajon-2017-012t

The creation and evolution of a nurse led first seizure clinic. Up to 10% (Angus-Leppan, 2014, pp. 27-31) of the population will have a seizure during their lives. Between 35 and 70% (Angus-Leppan, 2014) of those will have further seizures. In a pilot study done at Waikato hospital, 41% of those presenting to a

new, nurse led, first seizure clinic (NLFSC) were thought to have had an event clearly identified as a seizure.

The pilot study was set up with the aim of creating a permanent NLFSC. It was felt that this clinic would allow patients to be seen more timeously, triaged, investigated and then followed up where appropriate. A first seizure questionnaire was developed, in consultation with specialist neurologists. Data from the questionnaire was captured into a database for analysis

Two groups were identified as potential referrers to the clinic, GPs and the emergency department. Education sessions were held and a new referral form was developed and distributed. Questionnaires were completed by a nurse and discussed with a neurologist. Most patients had an EEG at the time of the consultation. Where possible, the EEG was reported by the neurologist supervising the clinic and all patients were discussed with the neurologist. During that discussion a working diagnosis was put forward, follow up was planned, further investigations initiated and the critical issue of driving discussed. When 200 patients had been seen an audit was conducted. A decision was made to continue the clinics in a slightly modified manner using a lightly modified questionnaire.

This presentation is not about analysis of the data which will be published elsewhere. It is about the evolution and effectiveness of a nurse led clinic for this group of patients.

Bibliography

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