

Practical Cognition Course

Conference details: 8-9 October, 2009; Newcastle, UK. **Reviewed by:** Dr Christine Albertyn, Neurology Trainee, Dublin, Ireland.

Consultants and trainees in neurology, neuropsychology, rehabilitation medicine, psychiatry and age-related psychiatry convened in the "Venice of the North" (Newcastle, that is!) for the second two-day course on Practical Cognition. The core aim was to develop skills and knowledge of the cognitive assessment and relate this to the patient.

The format of the course was intimate, with just over 30 attendees, which allowed for a relaxed and friendly atmosphere, encouraging questions and responses from all.

Prof Tim Griffiths set the tone in his introductory remarks: the course begins and ends with the patient, emphasising that a neuropsychological examination is a cost-effective, sensitive and specific way of diagnosing many neurodegenerative diseases and other brain disorders. The main topics covered in the course were movement and cognition, parietal lobe disorders and visual disorders. Each topic was introduced through a series of interactive case reports, including video footage, of a patient that may realistically be seen in the clinic or ward.

Dr Andrew Larner runs a cognitive neurology clinic in Liverpool and spoke about the bedside tests of cognition. He pointed out the potential shortfalls of the Mini-Mental State Exam (MMSE), in particular the lack of frontal lobe testing. The Revised Addenbrooke's Cognitive Examination (ACE-R) was discussed and by applying evidence-based medicine, he explained how this test may be best used, keeping in mind the sensitivity and specificity at various cut-off points.

Dr Tom Kelly, neuropsychologist, explained his role in practice and touched on the discrepancy between how neurologists view psycholo-



gy, in terms of localisation (i.e. frontal lobe) and how psychologists are trained in terms of function, (i.e. concentration). After a whistle-stop tour of the vast armour of tests, the delegates had a practice run of constructing and recalling the Rey Complex figure (not an easy task!). He emphasised the value of observing a patient performing the various tests, as this is as informative as the final score. He therefore hopes that the era of computer-administrated testing is still a distant one.

A personal highlight of the course was the session dedicated to cognition and movement. Six case reports vividly highlighted features that may be seen in the context of movement disorders, ranging from cortico-basal degeneration to Huntington's chorea. Prof David Burn is a movement disorder specialist and gave an excellent review of movement disorders and the associated neuropsychological features that can aid in diagnosis. His practical approach and tips were pearls of wisdom! The evening concluded on a high note with dinner at a restaurant on the top floor of the Baltic arts centre with a beautiful view of the Quayside.

The next morning, the parietal lobe disorders were practically illustrated through cases

of neglect, visual agnosia and simultaneous agnosia. The expert lecture was given by Prof Masud Husain, Consultant Neurologist at UCL. He classified the disorders of attention and elaborated on the localising value of certain forms of inattention. The dorsal and ventral visual streams were also discussed with the aid of MRI, helping attendees define anatomical landmarks. He showed interesting experiments demonstrating how neglect can vary with the number of competing stimuli and briefly touched on the fascinating research being done in impulse control disorders in Parkinson's disease.

The final session was on visual disorders, covering areas such as cortical blindness and blindsight. The expert lecture was given by Prof Geraint Rees, director of the Institute for Cognitive Neuroscience at UCL. His fascinating account of the visual pathways was a tour de force of understanding the visual brain. He touched on optical illusions, how we recognise faces and on the advances and limitations of functional imaging. He has certainly challenged me to see my sight in a different way, beyond the "anatomy of the visual pathway" of my student days!

The course was sponsored by the Guarantors of Brain and was structured to begin and end with the patient. The vivid examples made the learning points easy to remember. The core aim of developing skills and knowledge of the cognitive assessment and relating this to the patient was certainly met. It would be of value to all professionals in the area of neurology, psychiatry, age-related medicine and psychology. It not only equipped me, but left me inspired and excited to apply my new-found knowledge at the bedside! ♦

Developments in Acquired Brain Injury

Conference details: 11 November, 2009; London, UK. **Reviewed by:** Dr Judith Allanson, Consultant in Neuro-rehabilitation at Addenbrookes Hospital, Cambridge, UK.

The United Kingdom Acquired Brain Injury Forum (UKABIF) Conference held on 11 November was deemed a huge success by delegates, speakers and sponsors. The two hundred delegates included brain injury survivors and their families, a range of professionals from health and social services, representatives from the independent sector, case managers, Headway professionals and legal professionals. The event aimed to update attendees in areas ranging from nerve recovery to developments in rehabilitation assessments and therapies, outcome measures and changes in the law. The conference ended with a presen-

tation from Professor Keith Willett, National Director of Trauma Care.

The conference was treated to full and entertaining Plenary lecture from Professor Micky Selzer, Professor of Neurology and Director, Temple University School of Medicine, USA. He presented an excellent and comprehensive overview of developmental and regenerative neuroscience using examples from work on the lamprey where locomotion can recover well after cord section. He presented MRI studies, where individual nerve fibre pathway integrity after injury and during regeneration has been visualised and

explained how findings suggest that regeneration is not the same process as development. He summarised some of the well established mammalian research which has described differences between nerve recovery in the peripheral and central nervous systems.

There were pertinent clinical examples, with rather sobering facts that have emerged from study of the US military. 19% of US service members were found to have suffered at least a mild TBI. Professor Selzer explained that a blast injury was a relatively new form of brain injury caused by blast waves which travel at 26,400 feet/sec creating alternating extremes

of low and high pressure which can induce brain oedema, burst blood vessels, and can lead to air emboli, and cavitations. He made the interesting point that rest of body was more protected by Kevlar.

Sandra Stark, Consultant Therapist in Neurorehabilitation, Walkergate Park Centre for Neurorehabilitation and Neuropsychiatry, then, very clearly painted the complex picture of the many and rapid changes in therapy and service development that have occurred recently. She explained that a range of drivers to change have influenced practice and service development within Neurorehabilitation in the last few years. These include national reviews such as the Darzi report; changes in how services are commissioned by PCTs and SHAs such as World Class Commissioning and the Transformation of Community Services; the evolution of different ways of working such as the development of integrated care pathways; generic rehabilitation therapists; delivery of treatment closer to home; as well as the development of new ways of offering therapy.

We were reassured that most patients had embraced new technological solutions such as conference calls for consultation and advice, and the use of commercially available user/computer interface games such as the "Wii". In addition we were reassured that there was good reason for strength training and exercise making a comeback as myths of these exacerbating spasticity have generally been dispelled, albeit mostly in studies on treatment of people with stroke rather than other less focal forms of ABI. The use of constraint induced therapy and mirror therapy was elegantly reviewed with the impression that they have proved useful in most groups of stroke patients studied.

After coffee, Professor Anthony B Ward, from North Staffordshire Rehabilitation Centre, University Hospital of North Staffordshire, Stoke on Trent, developed the theme of new developments, describing the role of Rehabilitation physicians who now undertake a specific training as laid out in the updated curriculum of the RCP. He explained that rehabilitation was a process concerned with the promotion of physical and cognitive functioning, activities (including behaviour), participation (including quality of life) and modifying personal and environmental factors. He reminded us of the recent papers which illustrate the benefits of acute rehabilitation units, which can concentrate therapy – (which in turn can be associated with shorter hospital stays and improved outcomes); create an effective learning environment and with the right skill mix of staff optimise patients' physical and social functioning.

Several measures of dependency and outcome were presented showing how these have been used to increase efficiency of units where they have been able to adjust staffing levels according to need. One of the trends is the increased use of the Goal Attainment Rating Scale for outcome measurement which may be used as part of service evaluation in the future.

We were then given a fascinating update on

the use of combinations of clinical, electrophysiological and imaging techniques that are being employed to further our understanding of the vegetative state, by John Pickard, Professor of Neurosurgery, University of Cambridge at Addenbrookes University Hospitals Trust, Cambridge. One of the changes presented was that thinking has evolved in this area over the last decade and many now feel that consciousness is only achieved when several parts of cortex are functioning together in networks rather than activity in isolated parts of the cortex being sufficient. It was suggested that assessment tools for describing the presentation of people with impaired consciousness such as the WHIM (Wessex Head Injury Matrix), Coma recovery scales and the SMART, were best used by people who were familiar with them as the tools were only useful if used appropriately.

Prof Pickard emphasised that anatomical imaging and pathological findings rarely related well to function or outcome in this group. Recent developments in imaging analysis such as white matter tractography studies have been able to demonstrate significant white matter tract loss after traumatic brain injury. Furthermore, several studies have now described more white matter loss after hypoxic brain injury than after traumatic injury consistent with clinical findings in these groups. Professor Pickard described the use of combinations of assessment; one example being a recent study, where electrophysiological studies coupled with PET, were able to record selective responses to complex spoken language tasks in two patients, who appeared unaware at the time of study but who then emerged from a clinical vegetative state several months later.

Before lunch William Challis, Optua UK, described the development of a new Care Pathway which is aiming to be accessible to injured people, their family and all professionals. Information is expected to be arranged by a stage in the pathway (e.g. in patient rehabilitation) and by geographical location. The hope is that a click on a part of the pathway for a particular location will reveal details of any relevant services available for that person at that stage of their recovery. Challis promised that this structure will be available for all to use from early January 2010. From the "offline" demonstration given on the day this tool promised to be a very useful and long awaited resource. It will however be entirely dependent on the quality of information that is collected/supplied by each service that is included.

After lunch there was no danger of falling asleep listening to Bill Braithwaite QC's lively recall of several fascinating cases. While he emphasised that it remains best to avoid a trial if at all possible, he expertly took us through the recent case of "PETERS v EAST MIDLANDS 3.3.09" which set a precedent for a claimant opting for self-funding and damages in preference to reliance on the statutory obligations of a public authority provided that there was no real risk of double recovery.

Martin John, Chief Executive of the Office of

the Public Guardian then outlined the principles of the mental capacity act (2005) and how its implementation since October 2007 was now being reviewed. Martin John was keen to reassure us that the principles of the MCA were not being re-visited, and that the expectation was to work in partnership with all stakeholders. He thought that changes that were currently being planned would result in a bigger and stronger service which was understood and trusted by its customers.

After tea, Professor Nick Alderman, Clinical Neuro Psychologist, St Andrews Hospital, Northampton described the need for a new neuro-behavioural rating scale to help describe both an individual's progress during rehabilitation and service performance. While emphasising the diversity of impairments displayed by people recovering from injury, he did persuade us of the place for both individual case studies and service level "snap shots of measures of difficulty". He illustrated the process of developing valid, reliable and consistent measures by describing the evolution of a new Neurobehavioural rating scale the SAS-NOS (St Andrew's-Swansea Neurobehavioural Outcome Scale). It remains to be seen how translatable this will be to less specialised neurorehabilitation settings.

The conference ended with a presentation from Professor Keith Willett, National Director of Trauma Care calling for assistance with organising rehabilitation services to facilitate the new trauma delivery plan. This left delegates filled with hope for the future provision of rehabilitation services and UKABIF have offered their assistance with any aspect of this work.

Conclusions

The organisers should be warmly congratulated for putting together such a successful event. As introduced by its Chair, Professor Mike Barnes; this could be described as "the biggest event in the Brain Injury calendar". The day provided not only an excellent overview of developments in Acquired Brain Injury, but also created an excellent milieu for discussion and liaison between groups who have few opportunities to meet informally. If there was a problem at all it was that some speakers had produced such thorough, detailed overviews, that it was difficult to digest all of the details within the time. (The website does however have links to most of the talks).

Furthermore it was particularly exciting to hear from the trauma Tsar himself. He clearly has head trauma and early involvement of rehabilitation high on his agenda. There now seems to be a real possibility that the pathway to recovery following brain injury may become better defined, more coordinated better signposted and perhaps better understood by central government (although as yet not more adequately funded!).

UKABIF will hold the 2010 Conference at the Hotel Russell, London on Thursday 11th November 2010. Please see www.ukabif.org.uk for details about the conference and the organisation. ♦

Dementias 2010

Conference details: February, 2010; London, UK. **Reviewed by:** Rebecca Linssen, Editor, British Journal of Hospital Medicine.

PREVIEW

The 12th national conference for all those working with patients suffering from dementia will be taking place in London in February 2010. The 2-day conference, organised in association with the British Journal of Hospital Medicine, will give delegates a review and update on current developments in the dementias; in the fields of research, investigations, clinical care and service and policy issues.

The conference is aimed at all professionals involved with dementia, including old age psychiatrists, neurologists, geriatricians and physicians with an interest in the elderly; mental health service workers and team members, community nurses, hospital nurses and practice nurses.

Programme advisors Professor Tom Arie, CBE, Professor Emeritus of Health Care of the Elderly, University of Nottingham and Professor Alistair Burns Head of School of Psychiatry & Behavioural Sciences, Professor of Old Age Psychiatry, University of Manchester, have put together a programme of speakers from all over the country. Professor Arie and Professor Burns have worked together producing the programme for this national conference since the first conference took place in 1999.

The first day will begin with a key-note speech from Professor Martin Prince, King's College Hospital London, looking at dementia in a world perspective. Following a range of talks on clinical topics covering areas from management of dementia in primary care to issues around mental capacity and a look at imaging, the day will conclude with a special session including case histories and discussions of alternative treatments.

Professor Cornelius Katona, Professor of Dept Mental Health Sciences, University College London, London, will open the second day of the conference with an overview on the Treatment of behavioural and psychological symptoms. Following talks on Effects of physiotherapy and other treatments on care home residents and Cognitive stimulation, Professor Roy Jones, Director of the Research Institute for the Care of Older People in Bath, will outline drugs which are currently in clinical trials, and look at the potential these may offer for future treatments.

In the afternoon of day two Professor Julian C. Hughes, Consultant in Old Age Psychiatry and Honorary Professor of Philosophy of Ageing, Northumbria Healthcare NHS Foundation Trust, will discuss the Nuffield Council Report which looked at ethical issues

affecting patients with dementia. Dr Elizabeth Sampson, Senior Lecturer in Psychiatric and Supportive Care of the Elderly, Department of Mental Health Sciences, UCL, London will consider the importance of good end of life care for people with dementia. The conference will conclude with a joint session from the speakers and chairmen from the second day in which each details the best paper on dementias which he/she has read in the last year.

The conference will provide participants with an update on ongoing clinical, research, organisational and policy developments that are taking place in the field of dementia, a forum to share and exchange views with eminent faculty speakers, a chance to look at progress in old age psychiatry and its service provision, and an update on the management of clinical conditions and practices associated with dementia, e.g. agitation and depression, as well as the chance to debate and discuss 'alternative therapies' for dementia. ♦

For further information,
or to book a place, go to
www.mahealthcarevents.co.uk or
phone 020 6501 6762.

Highlights from the 20th International Symposium on ALS/MND

Conference details: 8-10 December, 2009, Berlin, Germany. **Reviewed by:** Dr Belinda Cupid, research manager, Motor Neurone Disease (MND) Association.

How close are we to understanding the cause? How can we best support people living with motor neurone disease (MND) and Amyotrophic Lateral Sclerosis (ALS) – the most common form of MND? What is the latest news on drug treatments? These are the key questions I know friends, colleagues and patients with MND will ask me when I talk about the 20th International Symposium on ALS/MND.

Dr Dena Jacobs presented some data showing the expression of one of the key transporters across the blood-brain and blood spinal cord barrier P-glycoprotein (P-gp). Her data provided evidence for the pharmacoresistance of people with MND to new treatments. P-gp commonly removes xenobiotics from the brain and spinal cord. Following poorer than expected results on a SOD1 mouse model of MND of a compound that



showed promise in the wild type, Dr Jacobs from Thomas Jefferson University, Philadelphia investigated the properties of this protein in ALS in more detail. Their hypothesis was that their candidate drug was a substrate for P-gp. Thus as P-gp expression increased with disease, the pharmacokinetics and the therapeutic effect were significantly altered. There is increased expression of P-gp in astrocytes in the spinal cord in symptomatic mice. These changes are not seen in spinal cord neurones or brain astrocytes in either wild type or pre-symptomatic mice.

Crucially, their preliminary data in humans reflected the findings in mice. P-gp levels are higher in the spinal cord of people with MND compared to unaffected controls. They are currently working to confirm their findings.

In contrast to exploring why drugs may not produce the expected results, there were a few reports of promising clinical trials. Watch this space for the results of the promising drug from Knopp Neurosciences Inc. The successful results of their phase 2 study of KNS-760704 were presented and plans for a phase 3 study are underway. It was a similar story for ceftriaxone, where recruitment has begun for a US phase 3 study. Concerns about being able to recruit for a clinical trial of an i.v.-administered drug have been unfounded so far – their recruitment is on track.

In the huge poster session of the symposium – over 330 posters were presented –

there was a description of another phase 2 trial underway. The results of the selective AMPA antagonist Talampanel are expected in the third quarter of 2010.

One of the sessions that created a real buzz at the meeting was the session on motor neuron biology. Prof Roger Lemon, based at the Institute of Neurology, UCL London made delegates sit up and take notice of the role and relevance of the corticospinal tract (CST) to understanding MND. As suggested in his excellent review of this area (Lemon Annual Review of Neuroscience 2008, 21: 195-218) his first point was that a description of neurones as 'upper' and 'lower' motor neurones is unjustified with modern knowledge of neuroscience and neuroanatomy. The importance of the CST to MND has been illustrated by a number of observations: the loss of fine, finger movement is an early feature of hand dysfunction in MND (an area controlled by CST input) and the motor neurones often spared in MND – the eye muscles and Onuf's nucleus receive no direct CST projections.

Anecdotally, neurologists may observe that their patients led athletic or very physically active lives prior to developing MND. Several years ago, the idea of a link between physical activity and MND became more prominent by reports of a higher than expected incidence of the disease in Italian footballers. In Berlin, we organised a debate entitled 'Is exercise is a predisposing factor in ALS?'. Prof Adriano Chio (from Torino, Italy) and Prof Wokke (from Utrecht, The Netherlands) presented the case for and against respectively. Emerging themes from their entertaining and comprehensive reviews of the epidemiological, pre-clinical and biological research included that exercise may lead to an earlier onset of MND and that more research is required to confirm the motion!

A symposium first was a dedicated session on spirituality for people with MND. Many delegates were inspired and moved by the presentations on meaning in life (as opposed to meaning of life) and case studies on spirituality. Exploring an individual's spirituality

helped people with MND, their families and those supporting them, illustrating the diversity and individual nature of spirituality. A key point in the presentation from Martin Fegg based at Munich University was that the loss of meaning in life is one of the main determinants for a person requesting to end their life. This session continued the ideas presented by Baroness Finlay, a patron of the MND Association, in her inspiring, opening talk of the conference, on palliative care.

She stressed good communication and good listening is essential if health and social care professionals are to help patients who are feeling helpless and hopeless. The one message I took from her presentation was to ask the very simple question 'What can we do to improve today'. Baroness Finlay also urged us to consider children affected by MND. ♦

More information about the 20th International Symposium on ALS/MND is available online at: www.mndassociation.org/mysymposium.

20th Meeting of the European Neurological Society

Conference details: 19-23 June, 2010; Berlin, Germany. Report by: Prof G Said, ENS Executive Committee.

PREVIEW

Teaching programme:

- 5 Main Symposia
- 23 Teaching Courses covering all important topics in Neurology
- 12 Workshops
- 6 Interactive Case Presentation Sessions
- Practical Sessions in Clinical Neurophysiology

Early registration deadline:

15 April, 2010

Abstract submission deadline:

3 February, 2010



Attendance to courses and workshops was a very rewarding aspect of the ENS meeting 2009 in Milan, with rooms completely filled with neurologists in training. Young neurologists are encouraged to apply for ENS support to attend the meeting and especially the teaching programme. Thanks to our programme for neurologists in training, many young neurologists can be invited to attend high quality teaching and scientific sessions.

The teaching programme will continue on Sunday morning and afternoon with courses covering the different neurological subspecialties ranging from neuro-oncology to motor neuron disease and neurorehabilitation. The latter will deal with the treatment of major problems after stroke and spinal cord injury. Practical approaches of current treatments in neurology will be taken care of in the teaching course devoted to tractography in clinical neurology, myasthenia gravis, conscious and unconscious agendas in the brain, painful neuropathies, pitfalls in neurological examination and developments in pathophysiology and treatment of CNS infection.

Practical breakfast sessions on clinical neurophysiology are included this year again with

hands-on sessions on EMG, nerve conduction and reflex studies.

The scientific programme will start on Monday morning with the Presidential Symposium on autoimmune disorders of the peripheral nervous system and muscle chaired by Prof. G. Said from Paris. Four main symposia on small vessel diseases, the borderland of epilepsy, hot topics in movement disorders and new treatment trials and emerging therapeutic targets in MS will also take place during the meeting.

Last but not least, oral and poster presentations with walking tours and interviews with presenters of scientific papers on various topics will illustrate the vitality of neurology in Europe. ♦

*We are looking very much forward to these stimulating sessions.
European Neurological Society*

For further information, please visit the ENS 2010 website: www.ensinfo.org

- Continuously updated scientific programme
- Online registration as well as hotel & tour registration
- Option to compose your personal congress programme
- Details about the industrial exhibition and symposia arranged with the industry
- Information about Berlin