Synapse

- Sit-to-stand rehabilitation in a patient with **Guillain-Barré** Syndrome
- Physiotherapy managment of neuroleptic induced Parkinsonism
- Sharing good practice: **Huntington's Disease** in Aneurin Bevan Health Board
- Focus on: The role of the expert witness





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ACPIN'S AIMS

- To promote and facilitate collaborative interaction between ACPIN members across all fields of practice including clinical, research and education.
- 2. To promote evidence informed practice and continuing professional development of ACPIN members by assisting in the exchange and dissemination of knowledge and ideas within the area of neurology.
- 3. To provide encouragement and support for members to participate in good quality research (with a diversity of methodologies) and evaluation of practice at all levels.
- 4. To maintain and continue to develop a reciprocal communication process with the Chartered Society of Physiotherapy on all issues related to neurology.
- 5. To foster and encourage collaborative working between ACPIN, other professional groups, related organisations ie third sector, government departments and members of the public.

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FROM THE CHAIR

It was with much trepidation and optimism that I received the chair's baton from Siobhan at the March ACPIN conference.

I was somewhat alarmed by the 'Keep calm and carry on' advice that kept coming my way. Might I add that Siobhan certainly knew how to go out with a bang with one of the most exciting and well organised ACPIN conferences that I have attended. Thank you to Siobhan for being an excellent chair through some difficult and changing times. She was, of course, supported by an excellent executive committee and national committee of regional representatives who have also helped me greatly with my transition from vice to chair.

So for my first message to you, I'd like to focus on what I've been working on for ACPIN so far: communication. Those of you who know me well might argue that communication isn't usually an issue for me, and I often 'communicate' incessantly. Well my aim has been to get ACPIN seen and heard within the CSP and beyond, with two main foci:

 As you are all aware, the special interest groups are no more and ACPIN is now a Professional Network (PN) forming part of the Neuroscience Alliance with ACPIVR (Association of Chartered Physiotherapists Interested in Vestibular Rehabilitation). An alliance or perhaps more a couple?

The CSP has assigned link personnel to each alliance to develop a conduit for communication and collaboration. Marousa Pavlou (chair of the alliance and ACPIVR) and I will meet them shortly. We see this as an important structure to give the alliance a voice within the CSP.

 Others of you who know me well are also familiar with my rather geeky tendencies: love of technology, gizmos and data. Well, I've married my IT leanings with my desire to shout about ACPIN and have launched a Facebook page and Twitter feed. We have been posting ACPIN news and events, plus news from other organisations of interest. The Facebook page has 133 likes as I write this, and is increasing steadily. Much to my delight, Facebook provides graphs informing of the reach of posted items with one post in August reaching 625 people! Twitter is a little quieter with 78 followers, but this may be that NHS members may find it harder to follow rapid tweeting when away from PCs. Check them out:

www.facebook.com/ACPIN.UK?ref=hl and twitter.com/ACPIN_UK

One last exciting nugget of information to communicate to you: in response to several requests the next ACPIN conference will be another two day event. The dates for your diary are the 1st and 2nd March 2013, to be held at the Northampton Hilton. The committees are working away to bring you another stimulating and thought provoking programme. Keep an eye out on the website, Facebook page and Twitter feed for more information as it comes.

Gita Ramdharry

This digital world!

Margaret Mayston AM FCSP PhD ACPIN President

Whether we like it or not we live in the age of digital media. I have to confess that I am not on Facebook, I do not 'Tweet', I do not have an e-portfolio, and though I consider myself a proficient computer user, the digital world is progressing at such a pace that I feel that I am starting to lag behind in my e-skills.

Two news articles caught my attention recently. The first was about what happens to digital accounts, passwords and personal e-repositories in general when we depart this world; something I had not considered. How do we deal with digital assets? What about online accounts and online renewals for insurance policies. What about online data, text files, images etc. Do people leave instructions as to passwords and the existence of their electronic bank and other accounts for their executors? Though we might not like to think of end of life matters, all of this seems important to take into account to prevent identity theft and misuse. As a recent victim of identity theft, I am perhaps more sensitive to this fact of the current digital age - I still have no idea how it happened! This seems to be one of the negative features of this electronic age. But of course there is also a positive side.

The second story was about a woman who asked the undertaker to place a bar code on her husband's headstone so that anyone could click onto it (not sure how this works!) and find out all about his life and achievements. This might sound bizarre and macabre but I thought this was an interesting and useful idea, and one which could be of value in our clinical practice. Imagine if we could have our clients' records available at the illumination of a barcode, if the inpatient's name card on the bed had a barcode with all their relevant information. I am sure that some practices already adopt such a system and in principle it seems like a secure way to store records. Being somewhat of a Luddite when it comes to digital media - I also confess that I do not own a smart phone so that I can escape emails and SMS at least some of the time - I am not sure how this works in reality. No doubt some kind of 'App' is required to access the barcode and its encoded information. Another particularly useful application would be to have our outcome measures on an 'App' so that we can record on the move and have an instant summary report and score which could then be entered into a database automatically. I envisage that the time when our clinical practice - indeed most aspects of life - require that we all have a 'tablet' (I mean in this case a version of digital media not a medication!) is not far off. This would enhance our data collection, enable multi-centre data collection via 'the mysterious cloud' and thus enable us to answer our research questions with greater robustness, and so accelerate the quest to achieve evidence based practice.

So, it seems that I must abandon my luddite characteristics and embrace this digital world – but always making sure that I treat these digital assets with sensitivity and respect. I encourage you to do the same.

Sit-to-stand rehabilitation in a patient with Guillain-Barré Syndrome

Julian Nicholas Calefato Biokineticist and MSc (pre-reg) physiotherapy student

Guillain-Barré Syndrome (GBS) is an autoimmune peripheral neuropathy that can affect motor, sensory and autonomic nerves as well as spinal roots, resulting in acute neuromuscular paralysis (Gupta *et al* 2010). 54-year-old Bob (pseudonym) was diagnosed with the most common GBS variant; acute inflammatory demyelinating polyradiculoneuropathy (AIDP). Nadir occurred eleven days post onset during which Bob presented with bilateral ascending muscle paralysis and required tracheal intubation while under intensive care.

This article provides a seven week account of the physiotherapeutic inpatient management of Bob's rehabilitation which commenced twelve weeks post onset. Bob's primary SMART goal (Doran, 1981) during this period was to sit-to-stand (STS) independently and safely and therefore the focus of this article is on his STS rehabilitation.

How people without dysfunction move from sitting to standing will be addressed in order to better understand Bob's impairments. Rationale for the therapeutic strategies and their effectiveness according to chosen outcome measures will also be discussed.

SIT-TO-STAND WITHOUT DYSFUNCTION:

Numerous models on how people STS without dysfunctions have been reported (Roebroeck *et al* 1994, Vander Linden *et al* 1994). A kinematic/ kinetic model was hypothesized by Schenkman *et al.* (1990), where the use of a momentum-transfer strategy with definitions of four phases has been described (*Figure 1*). The momentum-transfer model (MTM) qualitatively describes STS without dysfunction. Therefore it is possible to analyse and develop an understanding of STS dysfunction when it occurs, and target impairments with specific therapeutic strategies. The MTM has become



Figure 1 **The momentum-transfer model – four phases of rising marked by four key events.** Adapted from Schenkman et al (1990)

an increasingly popular model (Janssen *et al* 2002) and was used in this case.

SIT-TO-STAND DYSFUNCTION IN GBS:

The extent and severity of weakness in GBS may range from total paralysis requiring mechanical ventilation to partial paresis of foot dorsiflexors and/or intrinsic hand muscle (Orsini *et al* 2010). By week twelve post onset Bob had fully recovered from his initial respiratory distress but was not dynamically and/or functionally strong enough to proceed independently through the four phases described in the MTM. Several requirements are necessary to progress through all four phases of the MTM (Schenkman *et al* 1990). These include:

- Having enough strength and coordination to generate sufficient upper body momentum prior to lift-off from a seat.
- The ability to use eccentric contractions to control trunk and hip musculature in order to slow the forward progression after lift-off (this will prevent the individual from falling forward during the momentum-transfer phase, which is one of dynamic stability).
- Lower extremity joint integrity and strength must also be adequate for the extension component of rising, which requires concentric muscle control.

Therefore, identification of impairments that compromise these requirements during the various phases of Schenkman's MTM, aids in quantifying dysfunction.

Phase 1 (flexion-momentum)

Starts with the initiation of movement and ends just before the buttocks are lifted from the seat. However, Bob was initially unable to position his feet independently and appropriately in the seated position due to compromised proprioception in his feet (identified through distal joint sense testing) and specific weakness in his hamstrings, hip flexors and dorsiflexors (Oxford Scale – *Table 1*). According to Orsini *et al* (2010), GBS patients may lose joint position sense causing incoordination and therefore on performing movements such as a STS, may have poor judgement of ankle and foot positioning resulting in compromised balance and thereby also increasing the risk of falls.

Phase 1 also requires the trunk and pelvis to rotate anteriorly (into flexion) to generate sufficient upper-body momentum. However, weak hip flexors and compromised eccentric function of the hip extensors limited Bob's anterior pelvic-tilt function. Therefore he could not generate sufficient forward trunk momentum prior to lift off and was unable to control forward lean once beyond the vertical.

Phase 2 (momentum-transfer)

Begins as the buttocks are lifted from the seat and ends when maximal ankle dorsiflexion is achieved.

Bob was unable to bottom-lift due to the specific concentric weakness in his hip, knee and ankle extensor muscle groups. Initially he was also unable to achieve ankle plantigrade bilaterally resulting in him not maintaining heel contact when attempting to rise. This is not unusual and in conditions such as GBS, immobilisation and muscle weakness may lead to the development of contractures variously affecting the joint itself, contractile tissue and/or connective tissue (Farmer and James 2001). Supine positioning in bed and the weight of his bedding often orientated Bob's ankles into plantar flexed positions, and may have shortened his plantar flexors. According to Farmer and James (2001), muscles immobilized in shortened positions for prolonged periods result in the increased resistance to passive stretch due to connective tissue accumulation. Additionally, muscles immobilised in shortened positions also lose sarcomeres (Tardieu et al 1982), which may have contributed to his impaired ankle range of motion (ROM). During phase 2, momentum-transfer occurs when the forward momentum of the upperbody is transferred to the total body resulting in an upward and anterior movement. Initially Bob did not have sufficient eccentric strength of his hamstring, gluteus and trunk extensor muscle groups to eccentrically control anterior pelvic-tilt movement in order to slow the forward progression (momentum) of his trunk and maintain dynamic stability after lift-off.

OXFORD SCALE	WEE	EK 1	WEE	K 2	WEE	EK 3	WEE	K 4	WEE	K 5	WEE	K 6	WEE	K 7
(STRENGTH)	RIGHT	LEFT												
Hip extension	3	3	3	4	4	4	3	4	4	4	4	5	4	5
Hip flexion	3	3	3	3	3	4	3	3	3	4	4	4	4	4
Knee extension	2	3	3	3	3	4	3	3	3	4	4	4	4	5
Knee flexion	2	3	3	3	3	4	3	3	4	4	4	4	4	4
Hip abduction	2	3	3	3	3	4	3	4	4	4	4	5	5	5
Hip adduction	3	3	3	3	3	3	3	3	3	3	4	3	4	4
Plantarflexion	3	3	3	4	3	3	3	4	3	4	4	4	4	4
Dorsiflexion	3	3	3	3	3	4	3	3	3	3	4	4	4	4
Shoulder extension	3	3	3	3	4	3	3	3	4	4	4	4	5	5
Shoulder flexion	3	3	3	3	4	3	3	3	4	4	4	4	4	4
Shoulder abduction	3	3	3	3	4	4	4	3	4	4	4	4	4	4
Elbow extension	3	3	3	4	4	4	3	3	3	3	4	4	4	4
Elbow flexion	3	3	3	3	4	3	3	4	3	4	3	4	4	4
Sub-total	36	39	39	42	45	47	40	43	45	49	51	53	54	56
Combined total	7	5	8	1	9	2	8	3	9	4	10	4	11	0

Table 1 Oxford Scale data recordings

Phase 3 (extension)

Is initiated just after maximum ankle dorsiflexion and ends when the hips, legs and trunk reach full extension in standing. Bob did not have the concentric muscle strength and control of primarily his hip, knee, ankle and trunk extensors to translate his body vertically while in a stable position. In phase 3, head-flexion motion also comes to an end as full trunk, hip and leg extension is reached. Bob did however have sufficient concentric and eccentric strength and control for head/neck function. This may have been due to the pattern of demyelination/remyelination in GBS where clinical recovery follows remyelination at the spinal root level such that the first nerve segments to be demyelinated are the last to be remyelinated (Wexler 1983). Deficits in lower limb proprioception also affected his balance during this phase.

Phase 4 (stabilisation)

Begins after hip extension is reached and ends when all motion associated with stabilisation is completed. The purpose is to terminate translation of the body through space. However, the completion of this phase is difficult to ascertain, as it is difficult to reliably identify the transition between postural movements resulting from rising and normal postural sway (Schenkman *et al* 1990). Bob did not have the concentric and eccentric strength and/or control of specifically his hip, knee, ankle and trunk extensors to reach and/or maintain terminal translation of his body. Lower limb proprioception also affected his balance during this phase.

Investigation of Bob's STS dysfunction using Schenkman's 4 phase MTM identified decreased ankle ROM, altered proprioception and global weakness as primary impairments.

REHABILITATION OF THE SIT-TO-STAND MOVEMENT:

Through observing the characteristic kinematics used to accomplish each phase of rising, the therapist can form hypotheses regarding the strategies the patient is capable of using and begin reasoning the choice of therapeutic rehabilitation (Schenkman *et al* 1990). Rational justifications of the therapeutic strategies targeting the impairments identified in the previous section are discussed accordingly.

Range of Movement (ROM)

Immobilised GBS patients are at risk of developing tendon shortening, joint contractures, malalignment and peroneal nerve palsies (Ropper, 1992). To counter the decreased dorsiflexion in Bob's ankles, the use of passive stretching techniques such as manual passive stretching, the electric standing frame and night splints were used throughout the rehabilitation period and have been shown to improve ankle ROM (Farmer and James 2001). By managing Bob's ROM deficit with these strategies, he was able to achieve plantigrade and progress through phase 2 (momentum-transfer) of STS where the ankles reach their furthest point of dorsiflexion.

Proprioception

In GBS, sensory feedback is commonly impaired and jeopardises the development of new sensory engrams as peripheral nerves repair (Orsini *et al* 2010). Sensory engrams are postulated modified neural structures resulting from activity which retain whatever has been learned and according to Orsini *et al* (2010), the repetition of specific tasks and/or movements help to consolidate new sensory engrams. Visual correlation strategies have shown to be useful cues in improving sensory engrams (Orsini *et al* 2010). Therefore the appropriate positioning of Bob's feet prior to attempting a STS movement was facilitated in conjunction with the visual cue of looking where his feet were in order to correlate that position.

Weakness

During the seven week rehabilitation window, daily bed exercises were implemented to enhance global strength and maintain joint ROM. These consisted of active, active-assisted and resisted movements targeting hip, knee and ankle extensor muscle groups to enhance functional movements. Bed exercises also targeted elbow and shoulder extensors to enhance Bob's ability to press up from a seat with his arms during rising. Bed exercises were performed independently and allowed therapists to prioritise their treatments during Bob's daily functional muscle strengthening (STS) individual 45-minute physiotherapy session.

Throughout rehabilitation special considerations not to advance exercises too quickly were taken as overworking muscle groups in patients with peripheral nerve impairment has been clinically associated with paradoxical weakening (Herbison *et al* 1983 and Mullings *et al* 2010). Therefore therapists were sensitive to Bob's need to avoid fatigue, and high repetitions coupled with lower resistance and intensities were generally well tolerated as suggested by Mullings *et al* (2010).

Initially Bob was too weak to stand independently from a standard chair height and he did not have the strength or proprioception to position his feet appropriately. According to Janssen *et al* (2002) chair seat height and foot positioning are two factors that have a major influence on STS function. Additionally, Kawagoe *et al* (2000) indicate that lower maximum extension moments of the hip occur when feet are positioned more posteriorly, making it easier to stand up from sitting. Having raised Bob's seat height, a decrease in forward trunk generated momentum was required and the moment at the knees and hips was lowered (Janssen *et al* 2002) making it easier to progress through phase 1 (flexion-momentum) of the MTM.

Anterior pelvic tilt with forward trunk flexion in sitting was physically facilitated by the therapist with physical guidance on the upper trunk during initial sessions until Bob could independently control the movement. This exercise was aimed at enhancing the flexion-momentum phase of rising. Anterior pelvic-tilt and trunk flexion repetitions were followed by returning back to a neutral sitting position, which also resulted in the concentric and eccentric strengthening of trunk extensors which are important for the momentum-transfer (phase 2) and extension phase (phase 3).

The next step in task-specific rehabilitation entailed focusing on the momentum-transfer (phase 2) phase of rising whereby the momentum generated from forward trunk flexion in a seated position is transferred into an upward and anterior movement of the body. Bottom-lift exercises were chosen to achieve this. Functional closed-chain exercises such as bottom-lifts enhanced sensory input through foot ground contact and emphasised co-contraction of agonist/antagonist muscle groups as well as compression through the joints generating a stabilising effect (Cohen et al 2001). Initially Bob required therapist facilitation to achieve a bottom-lift off the edge of a plinth but as he got stronger he was able to perform the movement and reach the point of maximal dorsiflexion independently with hands pressing down on his thighs to support his flexed trunk position that he was not able to maintain without this support.

As Bob improved and progressed through phase 3 (extension) with the aim of reaching full hip, knee and trunk extension he still required active physical facilitation. This entailed the therapist maintaining hip alignment during STS and providing knee support. An additional therapist was also used initially to maintain foot positioning throughout the movement. A raised plinth was placed in front of him with which to support his body weight and specifically his trunk, which still tended to remain flexed in standing due to trunk extensor weakness. In this position he was able to perform shallow squats to strengthen his hip, knee, ankle and trunk extensors and as he got stronger the intensity was increased by deepening the squats but still with the support of the raised plinth. Squats are also close-chain exercises and as discussed earlier, have the same training benefits (Cohen et al 2001).

In Bob's seven week rehabilitation window, the seat height from which he performed STS was lowered, as he got stronger. He was still reliant on a raised plinth to support him during STS and maintain a standing position. However, he remained unable to fully extend his trunk into an upright position. Therefore rehabilitation needed to continue to focus on strengthening his trunk extensors.

Contrary to the MTM strategy where individuals move from STS without the use of their arms, Bob was taught to compensate with his arms to minimise his rising difficulties. This was decided as rising difficulties have shown to cause distress, low self-esteem and frustration ultimately discouraging the patient from making further attempts to stand (Munro and Steele 1998). The use of arm rests/supports have also shown to minimise STS difficulty as indicated by Janssen *et al* (2002), and may have enhanced Bob's ability to generate forward trunk momentum and lift-off during the early phases of STS.

Other

Deconditioning is another impairment, not identified by Schenkman's MTM in this case, that can influence STS outcome. Therefore twice a week during group exercise classes, Bob performed seated cycling and/or arm-ergometry to improve his aerobic capacity. According to Orsini *et al* (2010), aerobic training decreases fatigue and improves physical fitness and quality of life in GBS patients. Similarly Garssen *et al* (2004) found that a bicycle program for GBS patients improved physical fitness, functional outcome and quality of life and decreased self-reported fatigue scores by 20%. The benefits of aerobic exercise on rehabilitation outcome in GBS may therefore be justified.

OUTCOME MEASURES

Recovery and prognosis of GBS has traditionally been centred around walking ability in the literature and therefore much focus on assessing disability in GBS has been based solely on walking ability as an outcome (Khan and Ng 2009). As GBS encompasses a range of clinical manifestations with potential widespread impact on many areas of life, it is important to generate and/or select valid and sensitive outcome measures. Therefore with the help of The International Classification of Functioning, Disability and Health (ICF) (World Health Organization 2001), the impact of GBS in this case was quantified at several different levels. The identification of impairments, activity limitations and participation limitations provided a clearer understanding of the nature of Bob's STS dysfunction for which appropriate outcome measures could be selected.

The use of the Oxford Scale (*Table 1*) and a goniometer to measure ROM (*Table 2*), occurred weekly and are well-known outcome measures clinically. (Soryal *et al* 1992, Tuckey and

GONIOMETER	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	
Passive dorsiflexion (degrees)	-5	-2	1	4	4	5	6	
Table 2 Goniometer data recordings (dorsiflexion)								

	ITEM		WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7
		SELF CARE							
	1	Eating	4	4	5	4	5	6	6
	2	Grooming	3	3	3	2	3	3	3
	3	Bathing	2	2	2	2	2	2	3
	4	Dressing upper body	3	4	4	3	4	4	4
	5	Dressing lower body	2	3	2	2	2	2	3
	6	Toileting	3	3	4	3	3	4	4
~		SPINCHTER CONTROL							
IOTO	7	Bladder management	6	6	6	6	6	7	7
2	8	Bowel management	6	6	6	6	6	7	7
		TRANSFER							
	9	Bed, chair, wheelchair	3	3	4	3	4	5	6
	10	Toilet	3	3	4	3	4	5	6
	11	Tub, shower	3	3	4	4	4	5	6
		LOCOMOTION							
	12	Walk/wheelchair	2	2	2	2	2	3	3
	13	Stairs	0	0	1	0	2	2	3
		Sub-total	40	42	47	40	47	55	61
		COMMUNICATION							
	14	Comprehension	7	7	7	7	7	7	7
×	15	Expression	6	6	6	6	6	6	7
END		SOCIAL COGNITION							
ອ	16	Social interaction	2	2	2	2	3	3	3
	17	Problem solving	7	7	7	7	7	7	7
	18	Memory	7	7	7	7	7	7	7
		Sub-total	29	29	29	29	30	30	31
		Total	69	71	76	69	77	85	92

Table 3 Functional Independence Measure data recordings

Greenwood 2004, Low 1976). Considering that overworking muscle groups in patients with peripheral nerve impairment might lead to paradoxical weakening (Herbison *et al* 1983), the use of the Oxford Scale gauged potential adverse deviations in strength throughout rehabilitation. In fact, during week four of Bob's rehabilitation period there was an overall decrease in his Oxford Scale scores, and therefore the intensity of rehabilitation was temporarily reduced. Goniometer ROM measurements were important in assessing the efficacy of rehabilitation strategies due to recent contrasting evidence suggesting that the use of stretching in the form of positioning or splinting may not be effective in preventing contractures(Katalinic et al 2011). However, the therapeutic strategies used in this case did improve Bob's ankle ROM according to the weekly goniometry measurements, aiding him in progressing through phase 2 (momentum-transfer) of the MTM STS strategy. The Functional Independence Measure (FIM) (Table 3) (Granger et al 1998) was used to assess cognitive and motor function as well as ADLs on a weekly basis. According to Prasad et al (2001), it is sensitive in detecting disability and change in GBS survivors as well as having excellent validity, inter-rater and test retest reliability (Ottenbacher et al 1994). Interestingly, the motor aspect of the FIM score decreased significantly during week four of rehabilitation, which coincides with the decrease in strength detected using the Oxford Scale in the same week. This finding consolidated the need to decrease intensity and rehabilitation and was adjusted appropriately. Bob's FIM score improved from 69 (40 motor; 29 cognitive) in week 1 to 92 (61 motor; 31 cognitive) in week 7. Most of the change in outcome was due to motor score changes, as GBS does not usually affect cognition.

CONCLUSION

Schenkman's MTM provides a kinematic/kinetic framework describing how people STS without dysfunction, and therefore through which STS dysfunction can be identified. This model enables clinicians to identify impairments at various stages of STS, thereby providing rationale for therapeutic intervention strategies and for relevant outcome measures. By the end of the seven week rehabilitation period Bob still required a raised plinth in front of him as support when standing due to continued weakness of trunk extensors. He therefore did not achieve his goal of STS independently after seven weeks. It is difficult to predict recovery timescales in GBS but clinical experience with other patients suggests that the recovery phase is frequently prolonged.

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Physiotherapy management of neuroleptic induced Parkinsonism

four experienced physiotherapists discuss experience and evidence

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Neuroleptic (antipsychotic) medication is used in the treatment of mental health psychoses which may compound conditions like schizophrenia. It is also employed in the management of challenging behaviour in dementia. Both typical and atypical drugs in this class are associated with serious side effects, one of which is Parkinsonism. This results from the drug's action of blocking dopamine at receptor sites. Physiotherapy with this patient group has many challenges. This paper reports on a qualitative study which sought to explore these. A focus group was conducted with mental health physiotherapists (n=4) with experience of treating patients with neuroleptic induced Parkinsonism (NIP). Questioning explored the signs, symptoms and trajectory of NIP; physiotherapy assessment and management; multidisciplinary team working and possible enhancements to management. The focus group was audiotaped, transcribed verbatim and analysed thematically. Member checking was undertaken by supplying focus group participants with the full transcript and an outline of initial findings.

Participants reported that rigidity, soft tissue shortening, and weakness were pertinent to both idiopathic Parkinson's Disease (IPD) and NIP. Tremor was rarely seen and dyskinesia was of a tardive nature in NIP. Physiotherapists provided an important input into diagnosis and management of NIP, sometimes however referral was late, and teamwork was reportedly easier in a hospital rather than a community setting. An advisory role working with formal and informal carers was necessary if individuals were unable themselves to be involved in treatment decisions. Treatment itself focused on mobility, gait and falls prevention, exercise and physical activity, modifying approaches such as cueing employed in IPD. NIP is an issue worldwide due to inadequate funding for newer medication, which itself has side effects, and the rise in the number of people with dementia. Physiotherapists are well placed to evaluate the movement difficulties of this patient group and their response to pharmacological and physical treatment.

INTRODUCTION

Idiopathic Parkinson's Disease (IPD) is the most common form of the more general syndrome of Parkinsonism (Jankovic 2008). IPD is characterized by slowness of movement (bradykinesia), accompanied by rigidity and resting tremor (Macphee and Stewart 2006). The prevalance of drug-induced Parkinsonism is increasing and approaching that of IPD due to an aging population and polypharmacy (López-Sendón et al 2012). Drug-induced Parkinsonism is the most common cause of secondary Parkinsonism, with antipsychotic use a major contributory factor (Weiden 2008). Antipsychotics, also known as neuroleptics, are a class of drug used in the treatment of mental health psychoses. Symptoms include thought disorder (eg obsessional behaviour), hallucinations (visual, tactile and auditory) and delusions. In psychosis the capacity for appreciating reality is lost and there may be lack of insight into a specific symptom or problem (Gibb and Macpherson 2000). Neuroleptics generally tranquillise without impairing consciousness and are used to modify symptoms that may be disturbing for the individual and result in them causing harm to themselves or others.

Most commonly neuroleptics are used in the treatment of functional mental health disorders, such as schizophrenia, bipolar disorder, agitated depression, severe anxiety and mania. However they are also used to manage challenging behaviour presenting in individuals with an organic mental health disorder such as cognitive impairment or dementia, which occurs due to a pathological change in the brain structure. Table 1 sets out the generic and trade names of the more common typical and atypical neuroleptic agents. Despite being indispensible in treating psychotic disorders, neuroleptics are all associated with potentially serious side effects (Modestin et al 2008). In one study 62% of patients on neuroleptics developed a movement disorder (Grosset and Grosset 2004), one of which is neuroleptic-induced Parkinsonism (NIP) linked to the drug's action of blocking dopamine at receptor sites (Hodgson et al 2010). The atypical neuroleptics appear to have a lower incidence of movement disorder problems including Parkinsonism, and when they do occur they are likely to be less severe (Weiden 2008).

GENERIC NAME	TRADE NAME
Typical neuroleptics	
Chlorpromazine hydrochloride	Chloractil / Largactil
Flupenthixol	Depixol
Haloperidol	Dozic/Haldol/Serenace
Sulpiride	Sulpitil/Domatil/Sulpor
Fluphenazine decanoate (depot injection)	Modecate
Atypical neuroleptics	
Amisulpride	Solian
Aripiprazole	Abilify
Clozapine	Clozaril/Denzapine/Zaponex
Olanzapine	Zyprexa
Quetiapine	Seroquel
Risperidone	Risperdal
Zotepine	Zoleptil

Table 1 Generic and trade names of selected typical and atypical neuroleptic drugs based on Parkinson's Disease Society (2008)

Drug cessation is the most effective treatment of NIP however this is not always appropriate (Lee *et al* 2006). After discontinuation, 60% of those with drug-induced Parkinsonism will recover within two months; some will recover within hours or days but in some cases recovery may take several years (Parkinson's Disease Society 2008). However tardive syndromes, a group of delayed onset abnormal involuntary movement disorders, may occur years after neuroleptic withdrawal (Grosset and Grosset, 2004). Physiotherapy approaches similar to those used for patients with IPD may be added to a pharmacological treatment approach for NIP, such as using anticholinergic agents (Lennox and Lennox 2002). However physiotherapy is complicated by the additional symptoms of mental illness such as agitation, anxiety and insomnia (Chouinard and Margolese 2005).

There are well developed evidence based guidelines for the physiotherapy treatment of people with neurodegenerative IPD. Early, middle and late disease stages can be matched to goals of therapy with related evidence-based assessment protocols, recommended outcome measures and treatment strategies (Keus *et al* 2004). A practitioner's interest in exploring the transferability of the evidence base for physiotherapy in IPD to NIP inspired the small-scale qualitative study reported in this paper, which explored the specific challenges facing physiotherapists treating patients with NIP, and the relationship with IPD treatment strategies.

METHOD

A focus group was convened and participants recruited who had a current active role in physiotherapy in the field of mental health and experience of treating patients with NIP. Ethical approval was gained from University and Local **Research Ethics Committees and R&D approval** gained from the relevant health trust. Focus group prompt questions aimed to facilitate participants to explore the signs, symptoms and trajectory of NIP for those on medication and following its withdrawal; physiotherapy assessment and management; multidisciplinary team working; and possible enhancements to management. The focus group, conducted with a facilitator (EW) and a moderator was audiotaped, transcribed verbatim and analysed thematically initially by EW, and then by AL and DJ using a coding framework jointly agreed upon following repeated reading of the transcript. Member checking was undertaken by supplying focus group participants with the full transcript and an outline of initial findings (EW).

FINDINGS

Participants

The four focus group participants all worked in physiotherapy services for people with mental health problems, in a range of hospital and community settings, and their experience in the field ranged from 7 to over 30 years (*Table 2*).

PARTICIPANT	LENGTH OF EXPERIENCE IN MENTAL HEALTH PHYSIOTHERAPY	CLINICAL SETTINGS	MAIN PATIENT POPULATION (EG AGE AND LENGTH OF TIME ON NEUROLEPTIC MEDICATION)
(P1)	9 years	Inpatient assessment wards; day units; community	Older age adults on long term neuroleptics. More likely to see NIP in patients with organic conditions.
(P2)	7 years	Inpatient assessment wards; day units; community	Older age adults on long term neuroleptics. Also acute onset Parkinsonism associated with commencement of neuroleptic medication.
(P3)	25 years	Inpatient assessment wards; rehabilitation and recovery wards; day services; community	Adults (60+) known to mental health services for many years, often living in non-NHS community based residential homes, on long term neuroleptics.
(P4)	30+ years	Inpatient assessment wards; day units; community	Older age adults on long term neuroleptics. Acute onset Parkinsonism associated with commencement of neuroleptic medication.

Table 2 Characteristics of focus group participants

Movement related signs and symptoms of NIP

Whilst resting tremor is a classic feature of IPD, only action tremor was reported by one focus group member (P1). Rigidity was identified, with trunk flexor rigidity less marked than in IPD (P3). One member of the group reported having assessed bilateral cog-wheel rigidity in upper and lower limbs in the absence of any resting tremor (P2). Head drop and bent spine presentation were identified as common acute-onset symptoms following commencement of medication, particularly with a typical neuroleptic like haloperidol (P2). Spinal extensor muscle weakness caused posture and mobility difficulties, including problems with positioning for optimal fluid and food intake, and with transfers and falls (P2).

A number of gait and posture deficits were identified: tendency to progressive decrease in stride length (P4); festination (P1, P3); dyskinesia affecting gait (P2, P4); and a forward-flexed posture (P1, P4). Festination occurred in the classic IPD locations such as doorways and during turning (P3), but not as predictably as found in IPD. Freezing was not identified as a symptom. For those on long-term neuroleptic treatment idiosyncratic gait disturbances due to dyskinesia were a pertinent feature (P4). New episode tardive dyskinesia, not initially present on taking neuroleptic medication, was observed six months following cessation of long term neuroleptics (P2). Mobility could decline markedly even in younger individuals on starting medication (P4) and could decline progressively in individuals remaining on neuroleptic medication (P2, P4). General ageing compounded mobility problems, with institutionalization or confined living space in community homes contributing to immobility (P3, P4). Participants identified a heightened falls risk resulting from poor mobility, even in those under 65 years (P3, P4). *Table 3* presents the group's comparison of symptoms associated with IPD versus NIP.

Physiotherapy in the multidisciplinary management of NIP

A move towards a rehabilitation and recovery model as opposed to a maintenance model in mental health promoted regular MDT meetings

ASSOCIATED WITH IPD	ASSOCIATED WITH NIP
Resting tremor	No resting tremor
Action tremor	Action tremor
Trunk rigidity	Less trunk rigidity
Flexed trunk posture, increased tone in flexor musculature	Tendency towards trunk flexion (head and neck in particular), weakness in spinal extensor muscles
Unilateral onset of limb rigidity	Bilateral onset of limb rigidity
Cog-wheel and lead pipe rigidity	Possibility of cog-wheel rigidity
Progressively shorter stride length	Progressively shorter stride length
Festination classically in doorways, turning	Festination may be in classic situations
Freezing of gait	No freezing of gait
Dyskinesia	Tardive dyskinesia
Neurodegenerative, progressive	Progressive decline if left on neuroleptic medication
Classic stages of the condition	No stages identified

Table 3 Comparison of symptoms associated with IPD and NIP

(P1). Individuals prescribed neuroleptics were given regular review and side effects of medication monitored through close MDT working. Therapists felt that physiotherapy input was valued by other staff for inpatients with NIP in both organic and functional patient service areas. The group agreed that consultant psychiatrists were keen to involve physiotherapy on commencement of neuroleptics when there may be a period of acute onset Parkinsonism which may warrant a change of medication. Management of the patient during neuroleptic cessation also required an MDT approach (P1, P2). Opinions differed in terms of the perceived value placed on physiotherapy in NHS hospital settings (P2) as opposed to non-NHS community residential settings (P3) where physiotherapists were often not routinely involved. In hospital settings the team included consultants, nurses, other allied health professionals and a pharmacist (P4). This contrasted with community settings where the GP might be the medical link and access to the support of a psychiatrist as part of the MDT could be problematic (P3). Earlier referral was recommended (P3) where there was scope to assess and provide a treatment plan (P2, P4). Treatment was perceived as less effective both in cases when neuroleptic medication was not reduced, and also for those taking neuroleptic medication for long time periods, perhaps years, when tardive dyskinesia could be problematic (P2).

Physiotherapy management of NIP

Management approach

The physiotherapy role differed between those with organic and those with functional disorders. With an organic disorder the emphasis was on an advisory role involving the main carers of individuals with an inability to contribute to setting shared goals (P1). Individuals with functional disorder were actively involved in decision-making, goal setting and treatment planning (P1).

Physiotherapists agreed they treated the symptoms that presented sometimes prior to formal diagnosis being known. Daily input, which could be provided during the start of neuroleptic treatment (P1, P2), might consist of specific exercises and gait re-education and was felt to improve observed treatment outcomes (P2). Whether daily input improved gait by lessening NIP or by improving other factors such as general fitness that had compounded gait difficulty could not be specifically determined. Daily input improved individuals' function post-cessation of neuroleptic medication given over a short time period, allowing the best chance for full recovery (P2).

Referral, assessment and review

Assessment of mobility and monitoring for mobility problems (P4), and assessment of acute postural problems (P2) on commencement of neuroleptic medication were highlighted as reasons for referral to physiotherapy by the MDT. This was seen to aid management at a critical time period to best effect (P4). Sometimes however referral did not occur until mobility problems (P1) and falls risk (P3) were identified.

Therapists highlighted the difficulty of assessment, including differentiating between conditions (Caslake et al 2008). The presentation of dementia with Lewy bodies could resemble NIP, as could the presentation of individuals with chronic mental health disorders who might lack spontaneity in movement, ie differentiating between long-term symptoms of schizophrenia and NIP could be problematic. In addition gait patterns secondary to mental health disorder, eg possible attention seeking behaviour, might confuse the gait picture (P1). The symptom complex was likely to be highly individualistic, depending on dose and duration of neuroleptic medication, or how long since ceasing medication. Clinical experience in mental health contributed to the formulation of a provisional diagnosis of NIP by therapists which then contributed to a formal diagnosis (P1).

On an assessment unit a baseline physiotherapy assessment helped track progress over time (P4). An initial functional assessment with supplementary specific assessments, eg, Tinetti Balance Assessment Tool (Tinetti *et al* 1986), Berg Balance Scale (Berg *et al* 1989), Lindop Parkinson's Assessment Scale (Pearson *et al* 2009) was identified as part of the specialist mental health MDT assessment (P1, P2).

Mobility was monitored and care plans were amended as required. A monthly review of individuals post-cessation of neuroleptic medication involved the therapist repeating the initial assessment tool to assess change (P4). A review of a community mobility treatment plan would be undertaken to monitor success and provide additional advice to staff/family if necessary (P1, P4). Review was particularly important during transition from hospital to the community, as experience had proved this could be a time when mobility was unsupported and prone to deterioration (P4). One therapist saw a marked deterioration in mobility of an individual when reviewed after only one month in a new area of care as the care plan had not been adhered to (P4).

Treatment

Mobility, gait and falls prevention Rehearsal and repetition of transfers was a common treatment approach. Regular mobilising

over the course of the day reduced mobility problems (P2). Therapists identified cueing -- the use of auditory prompts for long sequences of movement such as walking - as a helpful treatment strategy. Cueing was particularly helpful for those having taken a short course of neuroleptic medication for challenging behaviour management. Cueing was also effective for individuals who had been on neuroleptics for many years (P1). Following cessation of medication gait could improve after one week of cueing treatment (P2), sometimes to the pre-neuroleptic level. Individuals responded well to verbal prompts and strategies to enable them to walk through doorways (P1). One therapist reflected on an individual for whom cueing had been particularly effective during neuroleptic dose reduction. However, when behavioural problems necessitated an increase again in neuroleptic medication, festination was more pronounced and cueing less effective (P2). Cueing was a useful technique to teach to nursing and care staff to help carry over of effect (P2).

Physiotherapists assisted nursing and care staff in care planning which would underpin management (P4) to minimise falls risk. Staff were advised on how to assist an individual to transfer and mobilise with or without a walking aid, and use cues to support management over a 24 hour period (P4). In the community, physiotherapists would work with care staff and family to allow them to understand mobility problems in relevant contexts and to build their confidence to provide assistance (P1, P2).

Exercise and physical activity

Therapists identified key specific exercises to address individual problems, eg trunk exercises including knee rolling and bridging to reduce trunk rigidity (P2). Qualified therapists would treat individuals with complex problems (P4). More general exercise was provided through physiotherapy technical instructors and assistantled ward based exercise groups (P4, P2). Engaging individuals on long term neuroleptic medication in activity could be challenging (P4). Physiotherapists indicated which individuals would be able to participate (P4) for walking groups with nursing staff. Physiotherapists were aware of community based exercise provision and were able to refer individuals being discharged for on-going exercise activity and weight management (P2). One respondent pointed out the distinct lack of attention to physical activity in several community residential homes (P3). These individuals benefited from attending a day centre where they could be assisted to mobilise over greater distances (P4).

Evaluation and Research

Evaluation of the effect of physiotherapy was perceived as complex given the difficulty identifying the recovery resulting from medication versus physiotherapy (P1), and participants agreed that more analysis of the effects of medication were required. There was a perceived lack of evidence of the trajectory of individuals who experience NIP which a longitudinal cohort study could address (P3). Given the lack of evidence, case studies were perceived to be appropriate starting points (P3). It would be important to study the presentation of different individuals taking the same medication dose (P4). Individuals on the newer atypical neuroleptics were likely to show a different trajectory and data on this should be collected (P4). Observational studies comparing the recovery of individuals on short term neuroleptics with and without physiotherapy would be instructive (P2). A randomised controlled trial of the effectiveness of physiotherapy post-cessation of neuroleptic medication versus no physiotherapy could also be considered (P2).

DISCUSSION

Whilst some authors report that NIP is clinically indistinguishable from IPD (Lennox and Lennox 2002) others observe clinical differences (Hirose 2006). Focus group participants reported that rigidity, soft tissue shortening, and weakness were pertinent to both groups. In NIP rigidity may present bilaterally rather than unilaterally, developing in a rapidly progressive manner; tremor can be the least common symptom, symmetrical in presentation, evident in both hands during rest and action, with pill rolling uncommon (Hirose 2006). Tardive dyskinesia, presenting as involuntary movements of the tongue, jaw or extremities lasting greater than four weeks, may develop with neuroleptic use (Kasantikul et al 2007). In IPD motor fluctuations, dystonia and dyskinesias can occur as a complication of long-term use of levodopa. Festination in classic IPD locations such as narrow doorways was not as predictable in NIP.

The Dutch guideline for physical therapy in Parkinson's Disease (Keus *et al* 2004) includes four Quick Reference Cards (QRCs) designed to help decision making in the practice setting. The following section maps focus group insights onto the format of one of the Dutch guideline QRCs relating phase of disease to treatment goals. *Figure 1* proposes a model of physiotherapy treatment goals related to the NIP symptom complex type.

A non-acute symptom complex presentation might result from administration of an atypical neuroleptic such as Olanzapine for longer term management of symptoms of psychosis. Physical

NON-ACUTE SYMPTOM COMPLEX OF NIP

Often atypical neuroleptic Often longer term, maintenance, relatively lower dose Management of psychotic symptoms

Physical problems: limb rigidity; reduced active dorsiflexion/heel strike; small steps, festination and/or freezing; falls

Comparable with early– mid phase IPD

ACUTE SYMPTOM COMPLEX OF NIP

Often typical neuroleptic

Often short term, relatively higher dose Acute psychosis and challenging behaviour management in dementia

Physical problems: weakness in cervical/trunk extensors; reduced soft tissue length in cervical/trunk flexors; trunk rigidity; limb rigidity; reduced active dorsiflexion/heel strike; small steps, festination and/or freezing; falls Comparable with mid–late phase IPD

Increasing symptom complex

Goal of therapy

- Reduce limb rigidity
- · Improve active dorsiflexion/heel strike
- Improve gait pattern
- Reduce falls risk

Goal of therapy

- Improve cervical/trunk extension
- Maintain soft tissue length in cervical/ trunk flexors
- Reduce trunk rigidity
- Reduce limb rigidity
- Improve active dorsiflexion/heel strike
- Improve gait pattern
- Reduce falls risk

Figure 1 NIP symptom complex type related to physiotherapy specific treatment goals (based on Keus et al 2004)

problems might include limb rigidity, gait problems, postural instability and falls. Tardive dyskinesia may develop over time compounding falls risk. A long-acting intramuscular depot injection could be administered for longer term or maintenance therapy, causing less side effects than the oral preparation. However side effects from long-acting injectable preparations may be equal to, less than or more than those with oral preparations, depending on the drug used (Zhornitsky and Stip 2012). An acute symptom complex may develop following administration of a typical neuroleptic such as haloperidol, given over a shorter term to manage acute symptoms of psychosis and symptoms of challenging behaviour in dementia. Physical difficulties may include postural problems of head drop and bent spine (camptocormia), trunk and limb rigidity, gait problems, postural instability and falls. Camptocormia, a dramatic abnormal postural problem with marked flexion of the thoracolumbar spine that increases with walking and abates in the recumbent position, is becoming an increasingly recognized feature of parkinsonian and dystonic disorders (Azher and Jankovic 2005). Other agents may be administered to reduce side effects by their different relative affinity for the various

receptors, such as Procyclidine, an anticholinergic, and Clozapine itself an atypical neuroleptic (Hensiek and Trimble 2002).

A very individualistic pattern of symptoms was reported for individuals with NIP, possibly linked to drug type and dosage. This constitutes a major difference with the classic early, middle and late or diagnostic, maintenance, complex palliative stages (MacMahon and Thomas 1998) of IPD. *Figure 1* highlights the greater range of problems associated with the acute symptom complex. Appropriate standardised outcome measures are required to match problems at each stage. A group of UK physiotherapists with an interest in IPD reviewed the outcome measures recommended in the Dutch guidelines for cultural relevance in the UK (Ramaswamy et al 2009). A similar approach could be taken by therapists with an interest in NIP to determine transferability of measures to their area of work.

Physiotherapists provide an important contribution to the formulation of a diagnosis of NIP and its subsequent management within the context of the multidisciplinary team. The practice context offers an opportunity to collect and collate a standardised data set in relation to physiotherapy with patients with NIP. Data collected could include details such as demographics of patients (age, gender, ethnicity), type and dose of medication, when commenced, symptom complex, what physiotherapy treatments were put in place (frequency, intensity, duration), short, medium and long term outcomes at an impairment, activity and participation level. Such data should highlight referral patterns, potential patterns of presentation with different types and dosage of medication and link with effectiveness of physiotherapy.

CONCLUSION

NIP has become less prevalent and incidence has continuously decreased with the use of atypical antipsychotics (Chouinard and Chouinard 2008). However NIP remains a global public health problem (Weiden 2008) due to the fact that there are inadequate funds to provide atypical antipsychotic drugs coupled with the reality that even these can cause movement disorders (Janno et al 2004). There is concern at the use of antipsychotics as a first line response to behavioural difficulty in the growing problem of dementia (Department of Health 2009). Focus groups with experienced therapists could provide an effective method of generating topics for questions about NIP to inform the development of a large scale survey of clinicians working in the field. Results could inform observational studies charting movement disorder arising from NIP, and extend the model presented in this paper to form the basis of an evaluation of physiotherapy treatment approaches for different symptom complexes.

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SHARING GOOD PRACTICE 1 Huntington's Disease

Adele Griffiths

In 2010, a multidisciplinary team for Huntington's Disease was appointed in Aneurin Bevan Health Board (ABHB) which serves a population of 600,000 in Southeast Wales.



This area has one of the highest incidences of Huntington's Disease (HD) in Europe and the team was established in conjunction with the Huntington's Disease Society, people affected by HD and the regional Huntington's management clinic to address concerns about the level of support this client group receives and how and where their care is delivered.

Angela Hall was a specialist physiotherapist working in an outpatient neurophysiotherapy clinic within the Aneurin Bevan Health Board at the time when the team formed. Angela had broad experience of a wide range of neurological conditions and was ready for the next challenge in her career. She was appointed in 2010 as the specialist physiotherapist for the ABHB Huntington's team.

Angela took some time out of her busy schedule to answer some questions about the team and its working practices.

Who is in the Huntington's team?

The team includes a clinical nurse specialist, clinical psychologist, specialist OT, physiothera-



pist, SALT and administration support. Initially plans for a community psychiatric nurse were changed following difficulty in recruitment. The HD team is unique within Wales and possibly within the UK as the staff work only with people affected by Huntington's Disease and are all based in one office.

The team works closely with the

Regional Huntington's Management Clinic which is based in Cardiff under Professor Anne Rosser. The management clinic sees many of the people with HD and their families from the ABHB catchment area. The HD team sits within the health board's complex health team and is funded from the Welsh Government.

How many patients do you see as a team?

The nurse specialist and administrative support are full time posts, all other team member work part time; the team equates to 3.5 whole time equivalent staff and serves a population of 55 patients. Patients are resident in a variety of settings including nursing homes, supported living units and their own homes. Less than half of the patients are in receipt of complex healthcare funding.

How do you work as a team?

The team operates a care coordinator system to ensure continuity and high standards of communication for patients' families and the team itself. Clinical discussions are held every week within the team to ensure that input is timely and appropriate. Goals for specific interventions are also discussed and agreed. Joint working between disciplines is necessary and highly beneficial.

Who can refer to the Huntington's team?

There is an open referral system accessible to health professions within primary and secondary healthcare as well as for social services, family members and patients. Not all people within the health board are willing or able to attend appointments at the Regional Huntington's Management Clinic; the establishment of a local service has provided invaluable support to these people.

Where do you usually see your clients?

Treatment is delivered wherever the patient is; this allows us to utilize the benefits of seeing someone within their own environment, to access more specialist equipment and additional assistance from qualified and specialized staff within local departments when needed and to follow patients into acute settings when they are admitted to hospital. This flexibility of location has huge benefits for the patients in terms of continuity of care, ensuring that other staff who may be unfamiliar with HD have a better understanding of the disease and the person behind the disease. The Huntington's Team, with their knowledge of the person and their normal domestic functioning parameters is able to facilitate quicker discharge and ensure that levels of mobility are not lost by well-meaning but illinformed healthcare workers with little experience of this very unusual condition.

What challenges have you faced?

Working within a team with a range of professions has been one of the biggest challenges: blurring of boundaries, accepting alternative clinical opinions and working practices can sometimes be difficult. Identifying our role within HD management has also taken time and regular open discussion.

The client group and HD are challenging from a treatment point of view. Factors such as motivation, poor higher executive function and compliance with treatment plans all have an impact upon intervention; this is compounded by variance in accessibility to community services. The physical symptoms and their impact on function, of involuntary movements and bradykinesia also add to the therapeutic challenges. Historically this is a client group that has not received consistent or expert intervention and therefore there is a poor evidence base of effective treatment options throughout the course of the disease process.

And what have been your successes?

Since the team formed, no patient has had to be moved to an additional care facility, all patients have been managed within their existing accommodation even as the condition has progressed.

The team raised concerns about the appropriateness of a specialist nursing home that was being used as a placement for a number of young and challenging patients. Following this all HD residents have been relocated closer to home in general nursing homes.

Most of the patients known to the HD team who have died have been able to stay at home in accordance with their and their family's wishes.

Early discussions about artificial feeding and end of life preferences have resulted in supported refusal of treatments and informed best interest meetings when the patients no longer have capacity or the skills to make those wishes known.

The team was awarded the 2012 Nursing Standard's community nursing award and was a short-listed finalist in the 2012 NHS Wales award in 'citizens at the centre of service re-design and delivery'.

The successful model of this team is now being considered by the Health Board in its design of future Brain Injury Services.

If you are working with HD patients and wish to contact Angela her email address is Angela.Hall@wales.nhs.uk

Angela is particularly interested in hearing from anyone who is working with others health professionals with HD.

Look out for the HD case presentation in your next copy of *Synapse*.

SHARING GOOD PRACTICE 2 Celtic connections

Reflections upon the use of Web-ex 8th September 2012

Adele Griffiths

Wales ACPIN formed in 2011 and as part of the Wales ACPIN committee's plans for success we recognized the need to use e-meetings to facilitate regular communication.

The National ACPIN Executive Committee agreed to financially support the use of Web-ex conferencing technology for one year with a view to rolling out the use of Web-ex to other regions in the future if it is found to be a useful tool.

Plans for using Web-ex include:

- To support committee meetings, reducing travel demands on committee members and encouraging committee members from further afield to join in.
- To broadcast evening lectures to ACPIN members living rooms or work places. So, to get the ball rolling Reji Abraham, one of the committee members with a flair for technology agreed to go about setting up Web-ex and finding out about the requirements and process.

The first committee meeting using Web-ex was scheduled, I had planned to attend in person, driving the sixty-six mile round trip to Costa Coffee on Junction 33 of the M4 [our customary meeting place] but, work was busy, one of my children was unwell and the dog needed walking! Help – I did not want to miss this meeting, I had important feedback from the national ACPIN meeting and I wanted to be in on the planning of our big balance conference and course. "Ok," I decided, "I'm just going to have to bite the bullet and go for this Web-ex thingy!"

Michelle Price, a committee member well versed in Web-ex usage from her time working for the Welsh Assembly Government Stroke Services Improvement Collaborative had been very reassuring about how easy it was to use but my only experience of Web-ex had been on an outdated computer in the speech therapy department which had no working speakers – not an ideal experience!

So I texted the Chair who notified Reji who sent me an invitation to my home email address. Dubiously (plagued by doubts of my technological expertise) I made coffee (cheaper than Costa) and found a tidy place in the house, clicked on the invitation line and, hey presto I connected, it was as easy as that. It was amazing, there I was, sitting in my kitchen listening to the meeting and joining in, thinking "WOW this beats driving to Cardiff and back – think of everything I can do in that additional two hours".

I was the only one with a video link (or at least the only one owning up!) so they could see me but I couldn't see them. Two of us were at home that night and three in Costa Coffee.

There were a few difficulties hearing people who weren't near the microphone. The three at Costa coffee were sharing a computer and Reji was on his mobile. But overall it was a great experience – and two minutes after the Chairman closed the meeting I was cooking tea and it felt fantastic not to be driving home for an hour.

For the second meeting with Web-ex available, I thought I had better turn up and so it was Reji and I in Costa coffee, three others linking from home and one person experiencing technical difficulties in West Wales. This time it was more difficult, I tend to like getting involved in the conversation and get quite animated in discussion (well what do you expect - I am a neurophysiotherapist after all), and I suddenly realized - after some half an hour of lively discussion that I was hunched over the laptop, speaking very loudly to out compete the floor buffing machine at Costa Coffee and receiving rather a lot of irritated looks from other customers trying to enjoy a relaxing break on their long journeys (west or east) only to be sharing the room with some strange woman bellowing at a laptop about evening lectures, membership lists and some people called Shumway-Cook and Woollacott. This somewhat curbed my enthusiasm and I lost the thread of the meeting at that point.

The next stage was to deliver an evening lecture via Web-ex, aiming to unite South, West and Northern regions of Wales with a modern take on the classic ACPIN evening lectures. Living in Manchester and working as a junior physiotherapist, evening lectures were easily accessible, as they are mainly for city based ACPIN members. A group of us would pile enthusiastically into a car and hurtle happily to the venue rarely more than half an hour away, but this format is a major challenge for more spread out and rural populations. Cue the Web-Ex, Dr Tom Hughes, a leading light in the Welsh Stroke Improvement Collaborative had agreed to speak about new developments in Telemedicine. Eighteen ACPIN members registered for the first Web-ex evening lecture (over twenty percent of the Wales ACPIN membership) however, following some technical difficulties in starting, the attendance dropped to eight for the lecture.

So, a mixed start for WEB-ex as we take stock half way through this trial year. Clearly we will need to address the technical glitches we have encountered and we will need to encourage more of our members to give the Web-ex evening lectures a try.

You can read more about how Wales ACPIN gets on with Web-ex in the next issue of *Synapse*.

If you are interested in trialing Web-ex in your region please contact your regional representative and ask them to speak to Jakko Brouwers, Vice Chair of National ACPIN and Chair of Wales ACPIN or Adele Griffiths – Regional representative for Wales ACPIN.

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FOCUS ON... 1 The role of the expert witness

Sue Edwards

The role of the physiotherapist as an expert witness has evolved over the past 30 years to the extent that the Medico-Legal Association of Chartered Physiotherapists (MLACP), which was founded in the late 1990's, now has nearly 200 members. The majority of members have limited experience in the medico-legal field and joined the MLACP to expand their expertise and increase the likelihood of gaining work.

So, what makes an expert? In 1990, I was asked by a solicitor in Manchester to provide a report for a severely disabled client. My natural instinct was to refuse as I had never contemplated doing this type of work. However, I was told "we need your particular expertise as your position as head physiotherapist at the National Hospital for Neurology and Neurosurgery gives you expert status to comment on this lady's physiotherapy needs both now and in the future. I am very happy to help with the legal aspects of report writing". At that time, there was no training for physiotherapists entering the medico-legal field and this seemed to be a good opportunity to 'dip my toe in the water'. Was I an expert? I taught extensively on various aspects of neurological physiotherapy at that time and might therefore be considered to be an 'expert clinician' but an 'expert witness' - definitely not. However, did I enjoy the experience; most certainly!

This initial report was reviewed by the claimant's barrister before being disclosed to the defendant. In turn it became part of the court bundle and was read by various other expert witnesses and legal personnel. It must have been acceptable as I was subsequently instructed by other solicitors; my first seven or eight cases being in the Manchester area.

My experience is probably similar to other physiotherapists starting out at that time. If the initial report was considered to be satisfactory, you were likely to get further instructions. It was a new and developing field and the CSP soon established an expert witness list. Solicitors would contact the CSP asking for someone to prepare a physiotherapy report and the Director of Professional Affairs would forward that request to the person she considered to be most suitable. A grace and favour state of affairs one might saykeep in with the Director!

Over the years the role of the expert witness has developed. Whereas we more 'senior experts' had to learn on the job, various courses are now available to provide training in the legal process. However, in spite of this training, many find it difficult to break into this field. Claims for people with neurological disability vary from between perhaps £300,000 for a young man with a sciatic nerve lesion to over £10 million for a cerebral palsy child with severe disability but a long life expectancy. Little wonder that solicitors prefer to stay with the tried and tested expert rather than instruct an unknown entity.

With regard to the type of instructions you may receive, these primarily address quantum, that is to say, what is the value of the claim? The physiotherapist has to provide recommendations with a detailed rationale of what physiotherapy and related equipment the client requires both now and in the future and the cost of this intervention. This invariably entails an assessment of the client at their place of residence. Clearly for the younger clients, predicting their long term needs can be difficult but, providing the physiotherapist has experience of working with clients over time and appreciates the impact of pathological movement patterns on the musculo-skeletal system/balance mechanism in later life, it is possible to provide a reasoned opinion. Reasoned being the operative word.

Other types of reports which may be requisitioned include those on liability and comments on the claimant's expert physiotherapy report. These are frequently 'desktop' reports whereby the physiotherapist relies entirely on the documentation provided by the solicitor as opposed to carrying out a hands-on assessment. On one occasion, I was instructed by criminal lawyers to comment on whether or not a man arrested for murder could indeed have wielded the rake given that he had a pre-existing hemiplegia. This necessitated a visit to Brixton prison, his 'place of residence'.

The physiotherapist may be instructed by the claimant, by the defendant or as a joint expert. All reports must comply with the Civil Procedure Rules, part 35. Further guidance is provided in Practice Direction 35 and Protocol for the Instruction of Experts to give Evidence in Civil Claims (www.justice.gov.uk/ courts/procedure-rules/civil/rules). Part 35 is intended to limit the use of oral expert evidence to that which is reasonably required and where possible, it is recommended that matters requiring expert evidence should be dealt with by only one expert. Experts and those instructing them are expected to have regard to the guidance contained in these documents and the report must contain a statement of truth.

Irrespective of the source of instruction, the report is prepared for the court and therefore should be independent and in no way biased toward either party. There needs to be a reasoned argument when setting out opinions and recommendations based on the documentation provided, the interview/assessment and the available evidence. Having provided the report, rest assured, that is not the end of the process.

- 1. There may be a conference with counsel to discuss the expert evidence prepared in the case and to ensure 'everyone is singing from the same hymn sheet'. For example, there may be overlap between the occupational therapy and the physiotherapy experts and recommendations need to be consistent. Also, the recommendations of the physiotherapist, which may include large items of equipment such as a neurological treatment plinth or arm and leg exerciser, will impact on the accommodation needs. These will therefore need to be incorporated into the architect's report.
- Once the report has been disclosed to the other side, questions of fact may be raised by the opposing party seeking specific clarification. These need to be addressed within 28 days.
- The physiotherapist may be asked to comment on the opposing side's physiotherapy evidence highlighting areas of agreement and disagreement and the reasons for this.
- 4. A joint statement may be required from both physiotherapists

instructed in the case. This usually involves a telephone discussion with the claimant's expert taking notes and preparing the joint statement. This is then sent to the defendant's expert and once agreement has been reached that this is an accurate reflection of the discussion, this is signed by both physiotherapists and sent to their instructing solicitor.

- 5. Throughout the process, the instructing solicitor may forward other expert evidence and updated medical records for you to consider. If this causes you to change your opinion, you must inform the solicitor immediately.
- 6. You may be requested to revisit the client for the purpose of providing a supplementary report if some time has elapsed since your initial report or specific treatment has been implemented which may have changed the client's functional ability.
- Most cases will settle out of court but occasionally the case may proceed to trial and you may be required to give evidence.

In summary, medico-legal work is very demanding and should not be entered into lightly. With the current uncertainty within the NHS, many

physiotherapists, even some newly qualified, are contemplating branching out into this field as it appears to be a lucrative area of work. However, the key criterion is to be, not only an expert practicing clinician but also an expert in report writing. Being able to write details of your therapy intervention for the purpose of record keeping is very different to providing a detailed report eloquently and succinctly, summarising the cause of injury and developing a reasoned argument for your recommendations. I advise caution on two counts; the expert witness has lost immunity and may now be sued for providing negligent expert evidence (Jones v Kaney) and Lord Justice Jackson's reforms to the civil justice system are likely to have profound effects on remuneration when providing expert reports.

In spite of these changes, medicolegal work continues to be a fascinating, challenging and very different experience for many physiotherapists. An attention to detail is paramount and I have found my obsessive compulsive tendencies invaluable! Who knows, perhaps you too will find it to be your true vocation.

FOCUS ON... 2 The Paralympics spectator experience

Lisa Knight

On Saturday 1st September I travelled with my husband and two children aged 11 and 8 to the Paralympics London 2012. We were lucky enough to have tickets for swimming in the morning and athletics in the evening. The excitement started to build as we left home at the crack of dawn. For a Saturday morning Epping tube station was heaving and everyone seeming to be going the same way! Faces were daubed with red, white and blue. There were colour co-ordinated outfits and flags tucked into rucksacks. Spontaneous conversations, previously unheard of on the tube, started to break out. When we arrived at Stratford everyone poured towards the Olympic Park to be met by the cheerful band of Games Makers. This was a very positive addition to the whole experience. Despite the early hour and the hordes of people this diverse mixture of volunteers were not just friendly and helpful, but aimed to create a real atmosphere with humour and enthusiasm.

By the time we took our seats in the Aquatic Centre, we were really geared up for the day. Although we were high in the stands there was still an excellent view of the pool, with big screens allowing us to zoom in on the competitors. The atmosphere was electric by the time the first swimmers came out and this just built and built throughout the morning. As a neurophysiotherapist I was really struck by the contrast at times between the competitors' ability to move on land and their speed and agility in the water. It made me think about untapped potential in some of my own patients and about the limitations that we as therapists may unwittingly impose on participation. These were not disabled athletes but first class enabled athletes. I wondered if this was why the story behind a competitor's disability was often hard to uncover – this was about what people can do, not what they had lost.

This focus on the positive and the mainstreaming of disability is clearly something that we have been striving for in rehabilitation for some time, as highlighted by the International Classification of Functioning, Disability and Health (ICF). It was really amazing to see this same focus applied by the general public and the media. It was great to have my children there too – for them to see that often the barriers that are created between disability and ability are merely perceptions, to see everyone applauding achievement and ignoring difference. I was put to shame by my son's grasp of the classification scheme too and really struck by the complexity of trying to fairly match often diverse impairments, particularly amongst the amputee and cerebral palsy competitors.

In the main stadium we had excellent seats with a fantastic view of the finish line and medal podiums. Highlights included seeing Jason Smyth smashing the world record in the 100m T13 final and fellow Irishman Michael Mckillop doing the same in the 800m T37. We were also able to marvel at the speed and skill of Oscar Pistorius who has developed such a refined and fluid running style.

We left the park after dark, marvelling at its beautiful architecture and artwork and having had a wonderful, unforgettable and truly inspiring day. For my children it was an opportunity to see how resourceful the human body and indeed the mind can be. For me it was an opportunity to take down some of the perceived barriers to rehabilitation and participation. Long may the Olympic spirit live on!

FOCUS ON... 3 The life of a PhD student

PhD Blog autumn edition - part 1

In my previous blog I wrote about some of the high and low points of starting a PhD. The highlight of my previous blog was around finding this elusive research question. I am pleased to inform you that I have found my research questions and felt that I should let you know what I have learnt about going through that process.

Top tips for finding a research question:

- Get familiar with the literature relating to your topic.
- Make a note of the key journals relating to your topic. One of the ways to do it is searching through different research databases and look for systematic reviews or metaanalysis done in the area of interest.

If you are registered with a university then this would be easy to do. If you are within the NHS you should be able to do this using Athens. Check with your hospital library or IT service.

- Critically appraise the literature relating to your topic. By doing this, you should notice a trend, either relating to gaps in the literature or limitations of the studies.
- If you have identified gaps in the research then your research question could be formed around ways of bridging the gaps you have identified. Alternatively if you have identified limitations to the studies that you have read, then your research question could be formed around how you could improve on the studies.
- However, if you have read the key

journals and you feel your topic or interest has not been documented then you can also formulate your research question based on the fact that no one has looked into the area that you are interested in.

Once I found my research question, I felt like a heavy load was lifted off my shoulders. Depending on your research question you then would need to find the best way to answer you it. That is, finding the right methodology. Prior to commencing your research you will need to gain the appropriate ethical approval. I would like to focus on the ethics process for this blog.

Ethical approval is essential for most research especially if you wish your research to be published in a reputable journal. Most universities have their own ethics committee where students have to get clearance. However, point to note that if you are researching in any area involving patient care you would also require ethical clearance from the National Research Ethics Service (NRES). My experience with the Ethics Committee has been enlightening. Firstly, completing the ethics form is as if you have carried out the study before you have even started. I felt as if I was repeating myself in many ways due to how the application process is constructed. I suppose they do this to ensure that you know exactly what you are trying to do and how you are proceeding ethically. My top tip for getting through ethics is not to be

offended when they send back your application with corrections to make. I would say do not be disheartened and only scan their comments on the first day. After two days it is worth going through and making the necessary amendments. After all, you need to get ethical clearance before you start the study so don't delay.

I am now at my one year mark and must say that this has been an interesting journey. Nonetheless, I am pleased with my progress thus far and have a good support team around me which keeps me on track. I have two more years to go and I am quite keen to get things done in the timeframe I have been given. There are many challenges but also many opportunities. I guess it depends on where you want to focus. I choose to focus on overcoming my challenges and keep a keen eye out for opportunities.

Part 2

In my first entry I explained how it had taken five years to actually begin my PhD due to the route I had taken in gaining trial funding before I started and the challenges and experiences this had provided. In this second entry I thought it would be useful to talk a little more about the trial and how my time is split between the various jobs required of a PhD student. Since all PhDs are so different the time frames and workloads will also vary considerably.

I am the blinded assessor and coordinator for the trial which aims to recruit 150 patients. The objective of the double blind placebo controlled trial is to identify whether using a combination of botulinum toxin and electrical stimulation to the forearm within six weeks post stroke in a group of patients with spasticity and no functional activity can lead to improvements in function at six months. Rather than using indirect measures of spasticity (eg Ashworth scales that are confounded by musculoskeletal stiffness) we are using abnormal muscle activity measured by EMG to identify patients who are developing spasticity.

If they develop abnormal muscle activity on EMG during the first six weeks post stroke then they are randomised to one of two groups – one group has placebo injections to the elbow and forearm flexors and thrice daily electrical stimulation to the wrist extensors for three months while one group has botulinum toxin injections to the elbow and forearm flexors and the same daily electrical stimulation for three months.

They are measured at baseline (prior to injections), then at two, four and six weeks post injections. At three months post injections they are reviewed again, the electrical stimulation is withdrawn and a final measure is taken at six months post stroke. The assessments include measures of impairment, activity and participation. Since this is not a scientific paper I will not go into all the details but hope this gives a flavour of the trial (more details are available on the ISRCTN website number: ISRCTN57435427).

Because the trial is so timeconsuming I am based at the hospital more than the university. I tend to get into work at 7.30am and review any new stroke patients on the computer who came in overnight and respond to emails etc. At 8.30am I begin doing screening assessments of patients on the wards. These are relatively quick measures using EMG, force meter and an electrogoniometer to measure people who have consented to participate but have not developed any abnormal muscle activity. I then try to see all the patients who require the two, four and six week post injection assessments who are still in the hospital. Some of these have been discharged home as have the patients at three and six month reviews so my time is taken up then travelling and assessing in the home environment.

If one of the patients who is being screened becomes appropriate for randomisation (they have developed spasticity and do not have functional recovery) then I speak to the consultant who signs the prescription and then take this down to pharmacy who are in control of randomising. The injectors need to also be informed and an acceptable time for the pharmacist, person reconstituting the trial drug and injector then needs to be decided on. Coordinating three extremely busy clinicians to be in the right place at the right time is difficult - I often feel like I am building a house of cards trying to achieve this and there are times when the pack crumbles and I need to begin again.

I always leave the time between 2.00pm and 4.00pm free to speak to families and visitors of patients to discuss the trial, introduce the trial and when patients are not able to do so themselves gain consent. As a clinician visiting time was sometimes frustrating as patients were not always available however now I look forward to it. I actually find them too short and have to go to the 6.00pm to 8.00pm visiting time on particularly busy days.

After 4.30pm I try to get reading a couple of articles and do work for the PhD. I am currently trying to do a Cochrane Review which takes up a phenomenal amount of time. It is necessary to submit other work to the university and I have just submitted my first year report which includes a literature review, methods and planned analysis of the trial. This will be followed up by a first year viva in the coming month which will hopefully allow progression to the second year.

There are many deadlines to keep on top of, however the one overarching and unrelenting scale is the recruitment graph. My constant tormentor shows how many patients I need to recruit to hit target broken down per month with a steady straight line from 0 to 150 which I always seem to be just under. Because the trial is only recruiting stroke patients with major impairments it is easy to find oneself getting frustrated when people are admitted with milder impairments or even if people recover quickly in the first week which is not commendable. While not wishing a stroke on anyone I just hope those who do have a major stroke attend our hospital and consent to the trial.

One year in and it is fair to say that the working hours are very long and most weekends involve at least some time working so it is difficult to relax completely. I am however, finding the whole experience extremely rewarding and learning many transferable skills. It is particularly exciting now that I am reviewing the patients who were recruited in the early stages of the trial. The next major objective is to pass that viva though!

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Arch hotell More topics and so pics include Day 1 of community tation pope with so 1st-2nd March 2013 The Hilton Hotel Northampton

ARNI trust exercise programme Exercise at home for people with

Update on the MS guidelines

REVIEWS ARTICLES BOOKS COURSES EQUIPMENT

Reviews of research articles, books, courses and equipment in *Synapse* are offered by regional ACPIN groups or individuals in response to requests from the ACPIN committee. In the spirit of an extension of the ERA (evaluating research articles) project they are offered as information for members and as an opportunity for some members to hone their reviewing skills. Editing is kept to a minimum and the reviews reflect the opinions of the authors only. We give the authors of the original book or paper the opportunity to respond. We hope these reviews will encourage members to read the original article and not simply take the views of the reviewers at face value.

COURSES

Dual task assessment and retraining in people with Parkinson's Disease

Review by **Gail Golding** Senior Physiotherapist, In-patients Neurorehab, Ysbyty Aneurin Bevan, South Wales

This course was hosted by London ACPIN on the 23rd of June 2012 and was open to rehabilitation professionals, at all levels, with special interest in neurology. Professor Sandra Brauer gave an overall excellent presentation on an extensive topic and still maintained interest throughout. She opened the day using statistical data from a cross-section of studies to lay the foundation of the negative impact of falls on quality of life and also the cost to the economy as regards this patient group.

Following this introduction to the problem, she then highlighted, through the results obtained from previous research of which she was a part, the top challenges persons with PD face whilst out in the community. These included crowded environments, physical load (shopping), ambience (lighting and weather) and distance (also linked to fatigue). At this point, the importance of getting a thorough history of the falls circumstances and using that to drive the therapist assessment and treatment was emphasised.

A presentation of this nature would not be complete without mention of the neurophysiology of the condition and the hypotheses associated with the individuals' responses. Professor Brauer communicated a potentially complex concept in a very practical and effective way with the use of marbles. One of the concepts demonstrated was how the complexity of a second task would result in attention being given to what the individual thought was more important during dual tasking. More specifically to gait disturbances, the consensus in the literature was that gait was further impaired with a second task. However differences were reported as regards the type of task and complexity and their effects on the parameters of gait such as step length, speed, stride length and freezing episodes.

The latter part of the course then saw Professor Brauer presenting a clinical programme that her and her team have developed and implemented based on the existing evidence. She made this section very interactive through the use of keen volunteers (impromptu course participants) and the use of video footage of both dual task assessment and training. Additionally, she shared her study and useful tips on who to train, principles of acquiring a skill, group versus one to one, training dose, session content and structure and progression. I found this very practical and cost effective and more importantly very patient focussed (ie the therapist having to be tuned into the patient's response to be effective). Case studies were then given to consolidate the presented concepts.

Overall, a comprehensive course which met all the stated objectives, with the added tips and tools for the mild to moderately impaired PD patients. For therapists seeing more disabled PD patients, there was still information available for use with some creativity. Professor Brauer identified gaps in her practise and utilised research evidence and experience to design assessment and rehabilitation of a significant problem in the PD population; good practice which she now shares with therapists around the world. I was particularly encouraged by this.

Balance rehabilitation: translating research into clinical practice

Anne Shumway-Cook and Marjorie Woollacott Wales ACPIN

Review by **Adele Griffiths** Regional representative Wales ACPIN

This course was the first of three taught by the well-known American lecturers in an autumn lecture tour of the UK. Originally booked for a three day course, the tutors graciously agreed to deliver the course in two days and present the keynote lecture at a linked 'Falls and Balance' conference on the first day. This gave an opportunity for Wales ACPIN to work in partnership with Cardiff Universities' School of Healthcare Studies and The Wales School for Primary Care Research which is a virtual school and partnership between the Universities of Cardiff, Swansea, Glamorgan and Bangor. Both events were hosted at the Michael Griffiths Building, Cardiff University, Heath Park Cardiff on 7th, 8th and 9th September 2012.

The two day 'Balance Rehabilitation' course was designed with the goal of discussing new concepts in the assessment and treatment of balance impairment. The busy program included three assessment labs where participants could explore tests related to the measurement of balance and mobility function. These were interspersed with case studies and small group discussions which focused on the development of evidence based treatment strategies for balance improvement and falls prevention, with the aim of providing a logical structure that would help the participants to organize clinical practices into a cohesive and comprehensive plan.

Feedback from participants was very positive; here is one representative, Juliette Dean:



Participants exploring balance.

"I would just like to pass on my thanks for such a good course this weekend. The organization was good, the speakers were excellent and the content was relevant, current and applicable – something so rarely found on lots of courses! Marjorie and Anne made the learning easy and they were extremely approachable, even with the silliest of questions. The only negative aspect to the course is that they won't be running any more after next year."

Wales ACPIN planned this ambitious three day event to establish itself on the ACPIN Regional map. Organisation across three host parties was challenging but allowed for important working relationships to be established.

Welsh Stroke conference 2012

Review by **Adele Griffiths** Regional representative Wales ACPIN

The 11th Welsh Stroke Conference was held at the Riverfront Centre in Newport South Wales on 19th June 2012.

This year's Welsh Stroke Conference was the best that I have attended. I think that the main reason for this was a greater balance between medical and rehabilitation topics in the program. In previous years, the morning program has been heavily biased towards medical management of stroke – understandable during the years when thrombolysis and acute stroke management was such a hot topic in Wales. Perhaps it is now, when Welsh acute services have made such improvements and have transformed acute stroke management that Wales can look to the longer term elements of stroke service development.

The format of the day, for those who have not been fortunate enough to attend this excellent event is a morning of lectures and presentations for all delegates, culminating in the presentation of the Bhomick Lecture. After lunch and poster viewing delegates divide into their chosen afternoon program, with a medical or rehabilitation focus.

This year the conference opened with Professor Helen Rogers from Newcastle speaking about the importance of early supported discharge, giving a good clear argument for specialized services.

Professor Iris Grunwald then took the floor and gave a hugely entertaining account of a project tackling the challenge of the thrombolysis window timings by fitting out a lorry with all the equipment required for pre thrombolysis assessment including head sized scanner and blood analysis lab. Tony Bayer gave a thought-provoking lecture on vascular cognitive impairment and Dr. Tom Hughes brought the first morning session to a close with feedback on the IST-3 trial and its clinical implications.

The second half of the morning session showcased good practice and innovation within Wales including two presentations of acute stroke care innovation and a Safer Homes for Stroke Patients project. This session concluded with Professor Martin Dennis giving a very visual overview of major stroke innovations in the last two decades and their impact upon patients.

The medical session after lunch covered mechanical thrombectomy, hemicraniectomy, carotid stenosis interventions and the development of interventional stroke services in Wales.

The afternoon rehabilitation session kicked off with Dr Aglaia Zeditz presenting results from the COGRAT study. Leslie Scobbie from the University of Sterling gave a very good talk on goal setting, advocating that the practice of setting of goals which therapists may think unattainable is of equal value to patients as the practice of modifying their goals into ones which therapists consider to be more realistic. This may allow them to understand why something is unrealistic by trying and failing rather than by simply being told that a goal is unobtainable.

Dr Ed Chadwick presented investigation into shoulder stability in normal subjects and the final lecture of the afternoon was given by Dr Alan Carson presenting functional stroke-like syndrome. The day was brought to a close by a presentation of the winning poster, Cardiff University PhD student Arshi Iqbal: Comparing a sensor based real time location system with an observation based system and the 10metre walk test to determine walking speed in the clinical setting.

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NEVVS

Interactive CSP

update September 2012 Chris Manning iCSP link moderator for neurology

Out of 56,532 iCSP members, 10,303 are registered with the neurology network reflecting the prominence of neurological physiotherapy.

You may have noticed a new category of discussion; 'Clinical Case Discussion'. This is as you might imagine for questions and suggestions about specific scenarios. The discussion section is more general eg use of outcome measures, spasticity management in the community.

There have been several discussions and news items concerning exercise, which reflects the content of recent ACPIN conferences and a general realisation that the people we work with are less active than the general population and can benefit from increased activity.

The 'News' section has information about new guidelines and consultations. Keep an eye on this as the timescale for response to some consultations is short.

Recent additions to documents have been sparse. If you do come across useful policies, or articles please share them with the network.

ACPIN Membership

Sandy Chambers ACPIN Honorary Membership Secretary

Registration will close for 2012 on 31st October. If you require membership for discounts on courses, including the UK Stroke Forum, please join/renew before the 31st October deadline.

Our membership numbers continue to climb steadily – even after the first of the year! We are now over 2,700 strong and likely to increase further due to our great programmes and the work of all the members and committees – both regional and national.

As you will note from the banner above, we will be closing membership registration on 31st October, as we do each year, to 'clean up' and get ready for the new membership year in 2013. Shortly, we hope to have a new membership system operational that will allow members and regions much more flexibility and autonomy in managing their information on the ACPIN membership database. I will be sending you information about the new system once it is fully tested and operational.

Please remember to update your details via the ACPIN website (www.acpin.net) to ensure that you are kept informed of the upcoming changes and any new courses. As always, please contact me at: memsec@acpin.org if you have queries regarding your membership.



The **International Neurological Physical Therapy Association** (INPA) can be found on Facebook. Visit the site often for information and news from physical therapists around the world. At last count we had therapists from 20 different countries participating. So join us.

FIVE MINUTES VVITH... MICHELLE DONALD PSYCHOSEXUAL THERAPIST



What were your original motivations for wanting to become a PST - how far have those motivations been fulfilled?

I became spinally injured in 1996 in a motorbike accident, which left me paralysed from my waist at T12. It was in the spinal centre that I became aware of how much people were asking about relationship and sexual issues so early after their accident, I was one of them, I went home with an indwelling catheter in feeling very unsexy. It took us a long time to manage the adjustments and apart from the psychologist at the spinal centre (an able bodied man) we felt we had no one we could talk to! I felt the staff had more important things to do than talk to me about my relationship and sexual worries. I was scared I may embarrass them, none of the staff had sex in the title so it felt a bit of a taboo subject!

With this in mind I set out to find out how I could fill that gap. I was a travel consultant prior to my accident and did not believe I was clever enough to go to University. I was so determined I had to prove myself wrong and that I did! With the help, guidance and support of my colleagues at Relate Lancashire I trained and gained my diploma in relationship counselling and enough clinical hours to embark on my Post Graduate Diploma in Psychosexual Therapy.

Where and who do you work with?

My client group consists of individuals and their partners struggling with various sexual dysfunctions affecting their relationships, regardless of ability or disability. In addition to working at Stoke Mandeville Spinal Centre I work with private clients, clients from Warrington Disability Partnership (WDP) and BUPA.

My expertise lies in the areas of sexual dysfunction related to spinal cord injury and the relationship issues that a SCI may bring with it.

I feel it is necessary to address the issue of how important sexuality is after a spinal cord injury, in that this aspect of the relationship shared by a couple, is often neglected, with the focus being on the physical dysfunction. I am becoming more involved in encouraging spinal centres to help incorporate ideas for change and presenting this information to all the staff to allow them to think about what is achievable within the short space of time that patients are in spinal centres and how sexual rehabilitation can be effectively integrated during that period.

Myself, and a colleague who works within oncology, created I-Said, (Informing on Sexuality After Illness and Disability) a company delivering training around sexuality and relationships, illness, disability and carer support to relevant groups and institutions nationwide. Something which both of us believe is hugely ignored and is difficult for individual staff to know how to work with.

I work as a volunteer with SHADA the Sexual Health and Disability Alliance as well as helping SPOKZ a disability counselling service with their online forum.

In addition, I am a group leader, trainer and mentor for The Back Up Trust, a national charity that runs a range of services for people with spinal cord injury.

Can you mention one challenge and one reward that you experienced during training?

I had never worked with a truly religious couple of a different culture before, this terrified me at the start. What if I said something wrong etc, we developed a wonderful therapeutic alliance and they too had been worried about working with a white lady in a wheelchair! They now have three children and contacted me as each child was born. The issue they came with was regarding non penetration! Their first child was one of my magic moments!

What do you think is most demanding about being a PST therapist?

Working with spinal cord injury patients that have an absolute script in their head that sex is never going to be worth the bother again. That's hard, as I know from personal experience what this can do to a relationship. I also know how amazing it can be again, when you get the intimacy back it's worth it!

What are the 'magic moments' of therapy for you?

Clients telling me their intimate stories, it's difficult for many people to talk about sex never mind to a stranger! It's always special when you feel them freely discussing their issues with you; that's their beginning, they have been strong enough to broach the subject with one an other and ask for help!

For more information please contact Michelle at:

Email michelledonald@gofast.co.uk Telephone 07775 927 533 Training website www.i-said.co.uk

REGIONAL REPORTS

East Anglia

Nicola Alexander

2012 has yet again been another successful year in East Anglia. In April we had our AGM with a vestibular and FES update. June saw a 'connective tissue and fascia' course run at Addenbrookes which was very well received and created so much interest that we plan to run it again next year. In October we ran a one and a half day 'Locomotion and lower limb rehabilitation' course, with Helen Lindfield, Bobath Tutor, as ever the course was very successful and we look forward to more courses with Helen in the future. The last item for our 2012 programme is a 'Long Term Management of Spinal Cord Injury' course, to be run by Debbie Hill and held at Norwich Community Hospital on 30th November and 1st December.

Our 2013 programme is currently in draft format but ideas include:

- Motor relearning with Gemma Alder
- Reach to Grasp with Paulette Van Vliet
- AGM Exercise and muscle fatigue in MS held at UEA in April
- Connective tissue and fascia (repeat course from 2012 programme)
- Exploring, treating and assessing cognitive impairment

Please keep an eye on the ACPIN website, Facebook page and Twitter feed for updates.

Our membership numbers have remained high, and the committee has been strong. We have been pleased to welcome two new committee members – Paul Chapman and Tabitha Mathers.

Funds within East Anglia ACPIN have been healthy now for a few years, and we have subsidised courses heavily. We will continue to subsidise courses in 2013 to make them affordable for our members.

As always, we are keen to receive course suggestions, so please contact me if you have any ideas.

Kent Nikki Guck

We have had another very successful year with our membership at the highest it has ever been, doubling our numbers and sustaining a very strong dedicated committee who readily give up their spare time to organise a regular programme of events for the local and often national membership.

Our programme in 2012 began with a brilliant study day on 'Spasticity management' delivered by clinical specialist Claire Ward. Thirty-three people attended the day which was held at The Village Hotel in Maidstone. Attendees came from a wide geographical area including Cheshire and Sheffield and all the feedback was extremely positive. Our thanks must be given to Claire for delivering such a thought provoking and challenging programme.

Our programme is always unfolding and as we go to print there are plans for a practical 'Aquatic Therapy' two day course in 'Complex Neurology' in November. Additionally the Christmas lecture will be 'Kinesiology taping in neurology' with mulled wine and mince pies. And finally save the date for Saturday 9th March 2013 which will be the Kent AGM with an exciting study day on Ataxia from Professor Jon Marsden and Dr Lisa Bunn. All new dates will be sent to the membership and advertised on the website.

As the region covers a large geographical area, we as a committee are always keen to hear from members that wish to join us. It is very sociable, as well as being a good time to network and discuss changes that are occurring in the ever changing NHS and private sectors. We are always also looking for members to send us ideas for future courses and evening lectures. Please do not hesitate to contact either myself or anyone on the committee on kentacpin@yahoo.co.uk, we look forward to hearing from you.

London Andrea Stennett

2012 has been a great year for the London Region both with ACPIN and non-APCIN related activities. The summer started off with the Queen's Diamond Jubilee celebrations and ended with the Summer (Olympic and Paralympic) Games. Physiotherapists from our region participated at various levels of the Summer Games which contributed to its success.

The London Committee would like to take this opportunity to thank all our speakers and members for making this year another success. We continued with the usual format for our courses which include a combination of study days, study mornings and evening lectures. As a committee, we try to provide courses that are laced with a mixture of evidence from the literature and practical tips that are clinically relevant. This we credit to our presenters both locally and internationally.

We are in the process of planning the 2013 programme and will publish these soon. Please keep checking the ACPIN website, *Frontline* and iCSP for updates on courses.

The London Committee remains stable with twelve members. Welcome to Biswajit Majumdar and Sally Davenport who recently joined the committee. We bid farewell to Trudy-Ann Sinclair as secretary and wish her all the best in her future endeavours. Madeleine Formoy will take on the role of secretary. This too is my final report as your regional representative. It was a pleasure serving you in this capacity.

Wishing you all the best for 2013. If you have any ideas for future courses, feedback or general comments please email us at londonacpin@googlemail.com

REGIONAL REPORTS

Manchester

Stuart McDarby

2012 has been a successful year for Manchester ACPIN, with a continuation of bi-monthly lectures and a two day course in the autumn.

We began the year with our AGM and practical demonstration in March. Once again we are grateful for the support provided to the Manchester Committee by the Manchester Neurotherapy Centre staff who provided a patient demonstration that was well received.

May's lecture was provided by Krystina Walton at the Highbank Rehabilitation Centre who talked at length around neuropathic pain. The evening became a question and answer session which proved interesting and prompted some insightful discussion!

July saw a lecture at Hope Hospital from MS nurse Alison Bradford, again feedback was positive and the lecture proved popular.

September saw Manchester host Anne Shumway–Cook and Marjorie Woolacott, in conjunction with Merseyside and Yorkshire ACPIN. This was a two day event, a mixture of practical and theory from internation– ally renowned speakers and we trust attendees found it worthwhile!

In 2012 our committee gained an extra member, with Lindsay Suddell joining our group. Welcome, Lindsay, and we look forward to working with you! The rest of the committee has remained largely the same, with Claire (chair), Anna (secretary), Helen (treasurer), Stuart (regional representative) and committee members Dani and Lorraine. As always, we welcome any interest in members joining and any new ideas on topics and speakers. We aim to spread our lectures around greater Manchester but this is dependent on venue availability. Any contributions regarding venues are always welcomed.

We are currently developing a programme for 2013 and have a final lecture for this year scheduled for November. Members are advised to keep an eye out for further details and you can contact myself or the committee at acpinmanchester@yahoo.co.uk

Merseyside

Anita Wade-Moulton

Our membership continues to grow.

In May we had an evening meeting focusing on feedback to members about the National ACPIN conference and an open forum to encourage a two-way dialogue with members regarding their needs from ACPIN. We accompanied this with cheese and wine. Unfortunately it was the day we had 'summer' so the meeting was not very well attended.

In September Merseyside supported the two day course by Ann Shumway– Cooke on 'Balance Rehabilitation'. This course was very well attended.

For October we hosted a successful lecture from a musculoskeletal colleague on treatment of the shoulder from the perspective of a musculoskeletal physiotherapist

In November, following last year's course by Clare Fraser, Bobath Tutor, another hands on treatment based course was very well received.

Other courses and lectures are being planned for 2013 and although we have a variety of subjects and suggestions for these, any suggestions from members are very welcome, please email Merseyside ACPIN.

At present these are our Merseyside executive committee and committee members

- President Sharon Williams
- Chair Jenny Wynne
- Secretary Heather Linnane
- Treasurer Jo Haworth
- Lecture Secretary vacant
- Membership secretary Jackie Isaacs
- Regional representative Anita Wade-Moulton
- Yahoo Internet account Sami Bartley
- Committee Member Caroline Child

North Trent Anna Wilkinson

We recently had an interesting talk from Jen Read, occupational therapist on dyspraxia; recognising its features and management strategies. We had a one day course with Nova Mullin about vestibular rehabilitation and this was well received. We have a neuroanatomy course run by Alan Ward on our agenda also for November. We have courses on handling abnormal movement aimed at Band 5 therapists and those wanting to brush up on handling skills. Next year we have podiatry, multiple sclerosis, neglect and splinting courses planned but plenty of space for other ideas. If you want to see anything in particular, please let us know.

Our committee can be contacted on northtrentacpin@hotmail.co.uk or regional representative at anna@morerehab.com

Northern Ireland

Dr Jacqui Crosbie

This year the ACPIN programme for Northern Ireland has run from January to May 2012, with monthly evening lectures. We held evening lectures featuring a range of topics. Glenda Duncan a dietician from the Regional Acquired Brain Injury Unit in Belfast held a session which highlighted the contribution of nutrition to neurological recovery. A respiratory update featured non-invasive ventilation in neuromuscular disease. We also ran a practical evening showing how Pilates principles and exercises can be incorporated into neurological rehabilitation programmes.

We try to involve other members of the multidisciplinary team in neurological rehabilitation so following the summer break the first evening meeting in October 2012 was given by Martina Daly, a continence nurse specialist. The November meeting will be a lecture on fear of falling by Shelley McKeown, a clinical psychologist.

Unfortunately, we were not able to offer a course or study day in last year's programme due to difficulty confirming dates with speakers or tutors. However, in the forthcoming session we plan to run a course with Catherine Cornell (Dublin) a Bobath Tutor and a Parkinson's Disease update with Fiona Lindop (Derby Hospitals).

On the research front the Stroke Unit of the Royal Victoria Hospital Belfast is participating in the Dopamine Augmented Rehabilitation in Stroke (DARS) project. It is planned to start mid-end July. This study will investigate whether giving co-careldopa treatment in combination with routine occupational and physiotherapy improves functional recovery after stroke.

The baby fairy has been very active in NI recently so next year will be something of a challenge as half of the committee will be on maternity leave! All being well we'll keep things together until they return. At our next committee meeting we shall be electing a new chair for the 2012–13 session.

Northern Anne Wood

Northern ACPIN has seen some changes with three new members joining the ranks: Lara Malone as chair, Anne Wood as regional representative and Lesley Charman as committee member. We are pleased to have 81 members in the Northern region and are keen to welcome new potential members.

Between September 2011 and March 2012 we held a series of 'Best in practice' lectures in neurological conditions at a variety of sites in our region. Topics included: multiple sclerosis, spasticity, acquired brain injury, Parkinson's Disease, spinal cord injury and stroke. These were so well received that a further series of 'Best in Practice' lectures have been arranged monthly from October to March/April including the topics: motor neurone disease, management of the acute neurosurgical patient, stroke from a physiotherapy perspective, Bobath concept: its place in contemporary neuro-rehabilitation and also functional disorders. These lectures are presented by experts in their field and are again at a variety of locations across the region. See Frontline or contact Northern ACPIN for further details.

Northern ACPIN has also run a 'Casting in neurology' practical workshop in June and the course 'Motor relearning: a problem solving approach, theoretical and practical applications in neurophysiotherapy for stroke'. We are currently planning further courses to be run in 2012/ 2013.

We welcome any ideas for courses, lectures or events for the future and any members who would like to join our friendly committee. We can be contacted at:

northernacpin@hotmail.co.uk

Oxford

Claire Guy

From our committee to all Oxford members, welcome to our report for the Autumn edition. Our evening lectures remain the mainstay for Oxford ACPIN with regular attendance of over 20 and although the venue tends to be Oxford, we will hope to be sharing these more widely. Please let the committee know your preference on venue location.

The Olympics were the sportfest many had hoped for and when this is published the Paralympics will have taken centre stage. Oxford played its part in the legacy Ludwig Guttmann left for the importance of sport for people following spinal cord injury (SCI) and ultimately the ongoing Paralympics. For those members who have asked, sadly Nikki Emerson did not make the GB 2012 team, but will be aiming for Rio.

The Autumn programme started with Clare Park, speech and language therapist talking about swallowing and dysphagia and Derek Wade, on the 'Minimally aware state'. The programme will follow with; SCI 'stations' at Stoke Mandeville Hospital, exercise physiology with Professor Helen Dawes, a specific topic related to postural management with Pat Postill and hopefully the ever popular neurosurgery updates with Stana Bojanic at the AGM. Courses we hope to run this year will be on vestibular rehabilitation and ataxia.

A big thank you to our members for your commitment at lectures. Keep any ideas coming to us, you can contact me on Claire.guy@buckshealthcare.nhs.uk

Scotland

Gillian Crighton

We have had a really busy year, starting off with the mental imagery study day in Perth in May, followed by the neurological hand course in August in Dundee and the FES study day in Clydebank in September, where four different companies demonstrated their FES devices with patient demonstrations and feedback. The neurological balance course took place in October in Inverness, rounding up another successful year for ACPIN Scotland.

Fiona Genney, our chair is taking some time off on maternity leave later this month. Thank you Fiona for all your hard work over the last few years. Elaine Hunter from NHS Fife will be taking over the role next month.

We are always keen for new committee members, meeting around four times a year in Perth. If you are interested in joining our committee or wish to find out more about what we do please contact me at gilliancrighton@nhs.net

If you would like to share any academic work, useful websites or the results of your projects with other ACPIN members please contact me or alternatively you could write an article for *Synapse*.

Suggested website: www.askdoris.org Doris provides easy access to current evidence, ongoing research and priorities for future research. In effect it does your literature search for you.

South Trent Laura Mitton

South Trent ACPIN committee has seen a few changes this year as we welcomed Elizabeth Varley as the new chair, Katy Coutts as membership secretary and Laura Mitton as regional representative.

This summer has seen South Trent ACPIN hosting an advanced Bobath course with Mary Lynch-Ellerington focusing on the head neck and thorax. The feedback received was very positive with attendees reporting the course to be very informative and enjoyable.

The latter end of 2012 will see South Trent ACPIN hosting a movement science lecture in October and an 'End of life' lecture in November which will aim to give therapists an insight into some of the issues associated with this stage of care and how best to manage them.

In 2013 we plan to run a series of evening lectures including 'Use of the Wii' by the Wii Star Research Team and stem cell research in relation to therapy outcome following stroke. In addition April 2013 will see us host a journal club aimed at exploring Pusher syndrome. More details of these events and other courses will be confirmed following our next committee meeting.

All details of events and courses will be emailed to South Trent ACPIN members, however if you would like to get in touch or are interested in joining the South Trent Committee we are always keen to welcome new members and receive any ideas for future courses. Please contact me via email at laura.mitton@nhs.net South West Helen Madden

South West ACPIN committee continues to grow with a large committee based in Bristol and Devon so we try and ensure events are held across our vast region. Our membership also continues to grow with over 200 members supporting the events we run, so thank you for your support.

Courses organised over the last six months have been held in various locations in Bristol and Plymouth and have included a research update evening, a Parkinson's Disease study day with Bhanu Rawaswamy, an evening lecture on Functional Electrical Stimulation (FES), an evening lecture on orthotics and our AGM included looking at emerging technology in rehabilitation.

Courses in current planning for the coming six months include a motor relearning course and a Bobath problem solving course in the community with further course ideas still to be finalised. Courses will be advertised on our regional south west webpage on the ACPIN website, interactive CSP and via email to our members. Places for courses will only be confirmed once a completed application form and payment has been received by the course organiser.

Our CPD fund was discontinued at the beginning of the year due to the amount of work involved by the committee to organise this and a lack of applications by our members. We have therefore decided to have a raffle this year with a prize of a place at national ACPIN conference for people who attend our courses in 2012. Further details are available on the ACPIN website on our South West regional page.

Please get in touch with us if you wish to find out more information about being on the committee, or have ideas/suggestions for future courses or venues.

Surrey and Borders

Emma Jones

2012 has been a successful year to date, returning to our previous programme of two monthly evening lectures and an annual study day.

This commenced in February with our AGM and Claire Ward's informative and well attended lecture on the role of the ICF model to support patient centred rehabilitation. This talk explored how the ICF could assist with clinical decision making, goal setting and the importance of considering participation, for optimising the outcome of rehabilitation.

In April, Jacqueline Pattman presented an interactive evening lecture on 'Hydrotherapy in neurology'. This lecture was enjoyed by a number of clinicians within the region and the cakes provided by Holy Cross were delicious as well!

In June, Brigitt Bailey spoke to members on medico-legal issues in neurology and the 'Role of the expert witness'. This was an enlightening evening on the legal processes involved within neurology and prompted thought provoking discussion between members.

We have also enjoyed our study day in September on 'Upper limb technologies for neurological patients', hosted by Southampton University. This study day was aimed at providing members with an update on the use of upper limb technologies within assessment and rehabilitation. The day commenced with a key note lecture by Professor Jane Burridge on the evidence base for the use of upper limb technologies, the importance of conducting research into technologies and what the future within field may hold. This was followed by Ruth Turk exploring the use of technology for the assessment of the upper limb, in order to understand the relationship between impairment and functional activity following stroke. The day continued with two lectures presenting current research in upper limb technologies including the use of Transcranial Direct Current Brain Stimulation combined with Robot Therapy and the LIFE CIT programme (Computer Technology to enhance Constraint Induced Therapy). Dr Sara Demain commenced the afternoon

session with a lecture on the burden of using technologies with patients and the day was concluded with an interactive discussion panel. The day was also sponsored by Saebo, Biometrics and Beagle. The day was a fantastic opportunity to bring together evidence based practice with innovative and dynamic considerations for clinical practice. It was an extremely informative study day.

The final talk of this year is on the use of the Goal Attainment Scale as an outcome measure within neurorehabilitation. This is due to be presented by Steve Ashford, clinical specialist physiotherapist. We are looking forward to this being an interesting conclusion to the year.

Ongoing events with be forwarded to Surrey and Borders ACPIN members by email. They also may be advertised in *Frontline*, on the iCSP website and on Facebook and Twitter, so keep your eyes peeled!

Please do not hesitate to contact me with any queries or suggestions for future programmes at emrob222000@yahoo.co.uk

We look forward to seeing you all at future events!

Sussex

Gemma Alder

Welcome to any new and existing members. Thank-you to all ACPIN members that have continued to support the running of Sussex ACPIN. The committee will continue to present a combination of study days and evening lectures and endeavour to have these at a number of different locations throughout Sussex.

The Sussex committee are grateful to all of the programme speakers this summer. These included 'Vestibular rehabilitation', 'The Dizzy Patient' and an overview of the 'LSVT BIG training' in Parkinson's Disease.

We have a selection of other events in the pipeline for the rest of 2012 and early 2013. These will include; 'The neurological patient and sexuality issues within therapy, another opportunity to attend 'Aquatic physiotherapy in neurological conditions' with Jacqueline Pattman, 'A neurorehabiltation MSc journey' and a possible topic for our AGM in March will be 'Sensory control of movement'.

More information and confirmation of these courses will be available on the website in the near future.

As always your thoughts and ideas are important to us; they really aid us shaping the course format for the following year. Please feel free to contact myself or any of the committee members to share your ideas.

REGIONAL REPORTS

Wales

Adele Griffiths

WALES ACPIN membership has continued to grow steadily through 2012 and now stands at ninety. We have organized three events since the Spring report.

The first was an evening lecture by Dr Tom Hughes speaking about recent advances in the use of Telemedicine. The evening lecture was broadcast via Web-ex, an e-meeting tool which allows ACPIN members to view and participate in lectures from the comfort of their own homes or from their local physio departments. This was the first lecture broadcast in this way and there were some teething difficulties which are detailed on page 19 of this issue of *Synapse* in a piece entitled *Celtic Connections*.

In early September ACPIN co-hosted a 'Falls and balance' conference with Cardiff Universities' School of Health Care Studies and the Wales School of Primary Care Research. The key note speakers were Anne Shumway-Cook and Marjorie Woollacott at the start of their UK Autumn tour. 150 delegates from a range of professions were booked on the conference; attendance was a little lower than that, one of the pitfalls of free events. The day featured a number of examples of good practice in falls management with opportunities for discussion, questions and networking. In the afternoon there was a poster discussion session at which people who had submitted posters were invited to speak and answer questions from the audience. The conference was brought to a close by a lively panel session with several of the conference speakers and representatives from the Welsh Government. At the end of the event delegates were invited to fill in a postcard to themselves with three pledges for changing practice, these will be sent to them as a New Years' greeting in 2013.

The 'Falls and balance' conference was followed by a two day 'Balance rehabilitation' course led by Anne Shumway-Cook and Marjorie Woollacott. The course 'Balance rehabilitation: translating research into practice' was very practical and firmly based on a wealth of evidence. For a more detailed write up of the course please see page 28 of this edition of *Synapse*. In addition to the Web-ex meeting trial, WALES ACPIN has also established a Wikispace for members to keep abreast of forthcoming events and a Gmail address for ease and continuity of contact. The name of the Wikispace is 'Wales ACPIN'.To join this or to register for a Web-ex lecture or to join ACPIN WALES please email: walesacpin@gmail.com

The organizing committee for Wales ACPIN welcomes anyone who wishes to join and also suggestions from members about courses or evening lectures. The committee is small, very friendly and would be delighted to have some new members. If you are interested let someone know or send an email.

Wessex

Lindsay O'Connor

As mentioned in our last update there were several changes to our committee and this has continued to be a theme throughout the last six months as we have a new secretary, treasurer and regional representative who were elected at our AGM in April. We continue to have a large regional membership and a strong and dynamic committee who are always welcome to new members.

As a region we have been busy with a regular series of stimulating and relevant evening lectures that have been incredibly well attended. In March we held an evening lecture in Southampton led by Miranda Gardner, head injury specialist nurse, on 'Traumatic brain injury and the behavioural components of rehabilitation'. This well presented and thought provoking lecture proved so successful, with a large number of members and interested colleagues attending, that we over-filled our usual space. In April our AGM was held near Winchester and followed on from another excellent talk on 'The psychology of inattention' by Richard Maddicks and Sarah Walker-Bircham, clinical neuropsychologists. In May our evening lecture was presented by Emyr Morgan, Neurosciences Care Group pharmacist on the topic of 'Neuropharmacology'. In June Peter Hutchings, peer support officer at the Spinal Injuries Association presented an evening lecture on 'Spinal Cord Injury - the early days'. Peter has a spinal cord injury himself and was an excellent presenter and story teller; if you have not had the opportunity to hear him talk you should definitely try to. As peer support officer for the South Peter performs an invaluable role, providing practical support and information to spinal cord injured people and their families who are not in specialist spinal units. Peter also provides a huge source of information and support for health care professionals working outside of specialist units. From personal experience working with Peter and a patient of my own I cannot emphasise enough the huge role he plays.

July and August saw a break in our schedule for the summer, with an

exciting programme of events planned for the Autumn and New Year. We started with a 'Pusher behaviour' course in September and several other events are in the pipeline including plans for a half day course on 'Functional disorders' in November, so please keep a look out for further information. We hope to meet the needs of the regional membership by offering stimulating and relevant events which enhance knowledge, professional development, clinical skills and networking.

As a region we continue to support the Wessex-Ghana Stroke Partnership. We previously heard from Emily Rogers, a local physiotherapist, who is returning to Ghana in September and is currently carrying out an exciting research project exploring the challenge of evaluating such projects. We hope to keep up to date with the on-going progress of the Partnership in the future.

As a committee we are looking into alternative venues for events, particularly those with a non-clinical content, in order to meet the needs of members across our large region and to offer as many of you as possible the opportunity of attending.

Please get in touch with any comments or suggestions, we will always welcome your input and want to represent members of the Wessex region as best as is possible.

West Midlands

Cameron Lindsay

The West Midlands region welcomed Charlotte Jackson as a new committee member during the summer. We had a relatively quiet beginning to the year in terms of study events but have a well packed series of events in autumn and winter. This year we have been successful in developing wider links throughout the region and as a result, held our first ACPIN course in Leamington for many years in September. This 'Movement Science' course was limited to 20 people and was oversubscribed with many more wishing to attend. We hope further courses will be be run here.

As our previous disease specific event was such a success we have used the same recipe to put together a series of talks on 'Muscular Dystrophy' to take place on the 28th November 2012.

We are looking forward to upcoming events in 2013. As this goes to press we are yet to get a confirmed date for a repeat 'Neuroplasticity' course led by Jackie Shanley but this is expected to be in early 2013. We have also planned a regional update on 'Early supported discharge for stroke' and a roundup of current local trials in neurological rehabilitation being led by physiotherapists within the region. In Easter Paulette van Vliet will be doing a practical and theoretical course.

Following the committee's development of a bursary programme at the AGM we have had a poor uptake. Please look at the ACPIN regional website to see details of how to apply.

Yorkshire

Kirstie Elliot

2012 continues to be a busy year for Yorkshire ACPIN. Having held our successful if a trifle chilly AGM looking at the latest evidence, research and trends in MS, MND, PD and ABI, we have continued to look at providing a varied lecture programme. This includes day courses on neglect, ataxia and myofacial techniques as well as evening lectures on management of the acute stroke patient and CT/MRI interpretation, hierarchy of cognition, spinal cord injuries and a joint collaboration with the allied health professions research network looking at local opportunities for research in neuro rehabilitation.

The AGM was particularly successful in terms of recruiting to our committee; in fact our committee now numbers 19 members including our liaison members who are assisting us with increasing the range of venues we are using. We continue to look at spreading venues and hope to see more new faces supporting these new venues.

As always we continue to look forward and are looking to hold a day on spasticity management, two day courses lead by Paulette van Vliet looking at reach to grasp and functional task training from a motor relearning viewpoint and also master classes with Mary Lynch Ellerington.

As always we are more then happy to take any questions, suggestions and comments via our yorkshireacpin @yahoo.co.uk email. We continue to send out flyers on courses to our members so would ask everyone to update their details via the national website as we don't have access to the national database.

WRITING FOR SYNAPSE

Synapse is the official peer-reviewed journal of the Association of Chartered Physiotherapists in Neurology (ACPIN). Synapse aims to provide a forum for publications that are interesting, informative and encourage debate in neurological physiotherapy and associated areas.

Synapse is pleased to accept submitted manuscripts from all grades and experience of staff including students. We particularly wish to encourage 'novice' writers considering publication for the first time and ACPIN provides support and guidance as required. All submissions will be acknowledged within two working weeks of receipt.

Examples of articles for submission:

Case Reports

Synapse is pleased to accept case reports that provide information on interesting or unusual patients which may encourage other practitioners to reflect on their own practice and clinical reasoning. It is recognised that case studies are usually written up retrospectively. The maximum length is 3,000 words and the following structure is suggested:

Title – this should be concise and reflect the key content of the case report.

Introduction – this sets the scene giving background to the topic, and why you consider this case to be important, for example what is new or different about it? A brief overview of the literature or the incorporation of a few references is useful so people can situate the case study against what already is known.

The patient – give a concise description of the patient and condition that shows the key physiotherapeutic, biomedical and psychosocial features. Give the patient a name, but not their own name. Photographs of the patient will need to be accompanied by explicit permission for them to be used. Only relevant information to the patients' problem should be included.

Intervention/method – Describe what you did, how the patient progressed and the outcome. Aims, treatment, outcomes, clinical reasoning and the patient's level of satisfaction should be addressed. Indications of time scales need to be considered.

Implications for practice – Discuss the knowledge gained, linking back to the aims/purpose, and to published research findings. Consider insights for treatment of similar patients, and potential for application to other conditions.

Summary – List the main lessons to be drawn from this example. Limitations should be clearly stated, and suggestions made for clinical practice.

References – the Harvard style of referencing should be followed (please see *Preparation of editorial material* below).

Original research papers

These should not exceed 4,000 words and papers should include the following headings:

Abstract – (maximum of 300 words) Introduction

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Method – to include design, participants, materials and procedure

Results

Discussion

Conclusion – including implications for practice

References

Abstracts of thesis and dissertations

Abstracts from research (undergraduate and postgraduate) projects, presentations or posters will be welcomed. They should be up to 500 words, and broadly follow the conventional format: introduction, purpose, method, result, discussion, conclusion.

Audit report

A report which contains examination of the method, results, analysis, conclusions of audit relating to neurology and physiotherapy, using any method or design. This could include a Service Development Quality Assurance report of changes in service delivery aimed at improving quality. These should be up to 2,000 words.

Sharing good practice

This *Synapse* feature aims to spread the word amongst ACPIN members about innovative practice or service developments. The original format for this piece started as a question and answer session, covering the salient points of the topic, along with a contact name of the author for readers to pursue if they wish. Questions were loosely framed around the following aspects (this would be for an audit)

- What was the driving force to initiate it?
- How did you go about it?
- What measurements did you use?
- What resources did you need?
- What did you learn about the process?How has it changed your service?
- However recent editions have moved away from this format, and provide a fuller picture of their topic eg *Introducing a management pack for stroke patients in nursing homes* (Dearlove H Autumn 2007), An in-service development education programme working across three different hospitals (Fisher J Spring 2006), A therapy led bed service at a community hospital (Ramaswamy B Autumn 2008) and Establishing an early supported discharge team for stroke (Dunkerley A Spring 2008).

Product news

A short appraisal of up to 500 words, used to bring new or redesigned equipment to the notice of readers. This may include a description of a mechanical or technical device used in assessment, treatment management or education to include specifications and summary evaluation. Please note, ACPIN and *Synapse* take no responsibility for these products, it is not an endorsement of the product.

Reviews

Course, book or journal reviews relevant to neurophysiotherapy are always welcome. Word count should be around 500. This section should reflect the wealth of events and lectures held by the ACPIN Regions every year.

OTHER REGULAR FEATURES Focus on...

This is a *flexible space* in *Synapse* that features a range of topics and serves to offer different perspectives on subjects. Examples have been a stroke survivor's own account, an insight into physiotherapy behind the Paralympics and the topics of research, evidence and clinical measurement.

Five minutes with...

This is the newest feature for *Synapse*, where an ACPIN member takes 'five minutes' to interview well-known professionals about their views and influences on topics of interest to neurophysiotherapists. We are always keen to receive suggestions of individuals who would be suitable to feature.

PREPARATION OF EDITORIAL MATERIAL

Copies should be produced in Microsoft Word. Wherever possible diagrams and tables should be produced in electronic form, eg excel, and the software used clearly identified.

- The first page should include:
- The title of the article
- The name of the author(s) A complete name and address for
- complete name and address
 correspondence
- Professional and academic qualifications for all authors and their current positions

For original research papers, a brief note about each author that indicates their contribution and a summary of any funds supporting their work.

All articles should be well organised and written in simple, clear, correct English. The positions of tables and charts or photographs should be appropriately titled and numbered consecutively in the text.

All **photographs or line drawings** should be *at least* 1,400 x 2,000 pixels at 72dpi.

All abbreviations must be explained.

References should be listed alphabetically, in the Harvard style. (see www.shef.ac.uk/ library/libdocs/hsl-dvc1.pdf) eg:

Pearson MJT et al (2009) Validity and interrater reliability of the Lindop Parkinson's Disease Mobility Assessment: a preliminary study Physiotherapy (95) pp126-133.

If the article mentions an **outcome measure**, appropriate information about it should be included, describing measuring properties and where it may be obtained.

Permissions and ethical certification;

either provide written permission from patients, parents or guardians to publish photographs of recognisable individuals, or obscure facial features. For reports of research involving people, written confirmation of informed consent is required.

SUBMISSION OF ARTICLES

An electronic and hard copy of each article should be sent with a covering letter from the principal author stating the type of article being submitted, releasing copyright, confirming that appropriate permissions have been obtained, or stating what reprinting permissions are needed. For further information please contact the *Synapse* editor Lisa Knight at: synapse@acpin.net

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