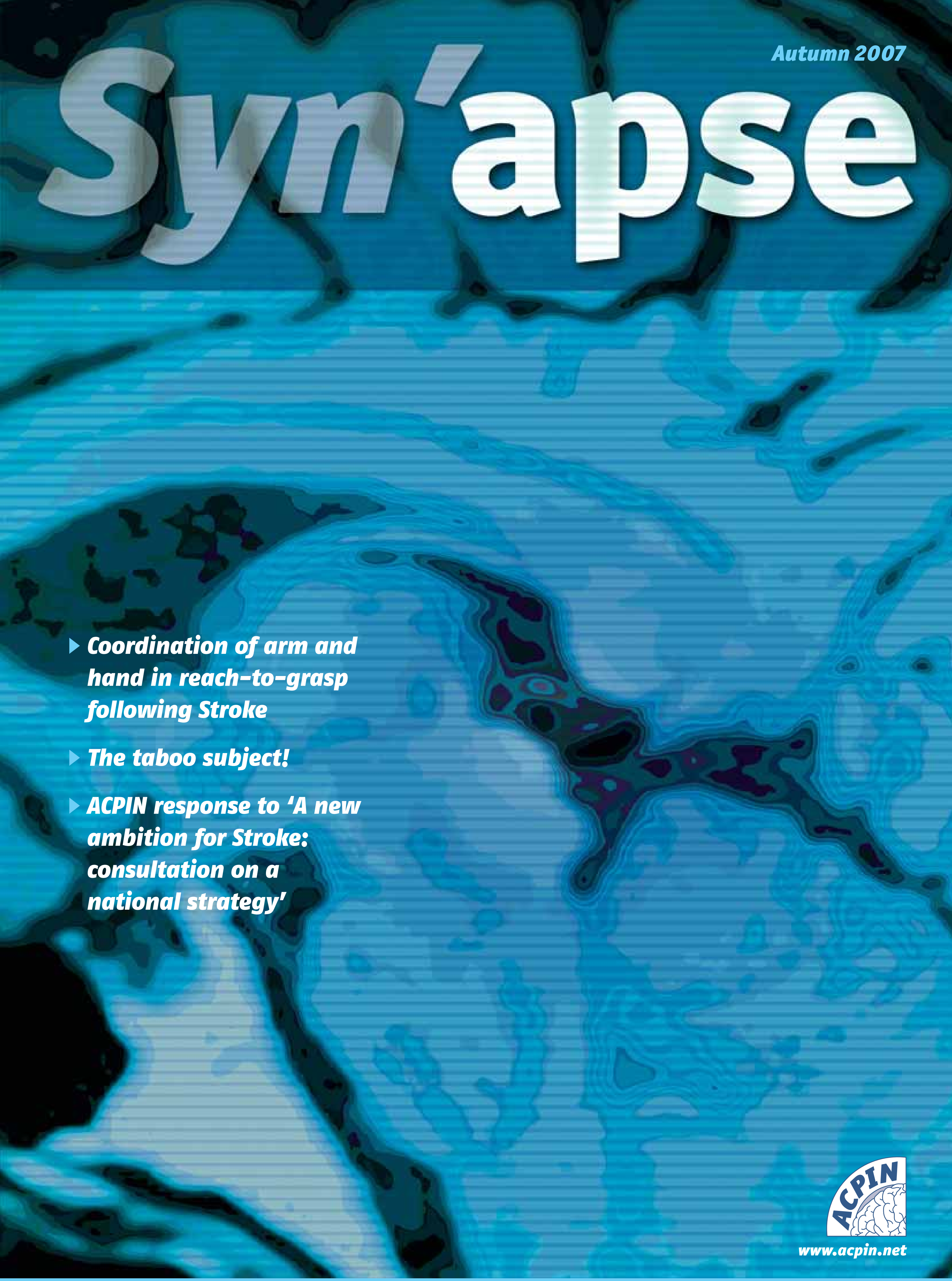
Autumn 2007

Syn'apse



- Coordination of arm and hand in reach-to-grasp following Stroke
- The taboo subject!
- ACPIN response to 'A new ambition for Stroke: consultation on a national strategy'

ACPIN

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JOURNAL AND NEWSLETTER OF THE **ASSOCIATION OF CHARTERED PHYSIOTHERAPISTS INTERESTED IN NEUROLOGY**

Syn'apse

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**ASSOCIATION OF CHARTERED
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IN NEUROLOGY**

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ACPIN'S AIMS

1. To encourage, promote and facilitate the exchange of ideas between ACPIN members within clinical and educational areas.
2. To promote the educational development of ACPIN members by encouraging the use of evidence-based practice and continuing professional development.
3. To encourage members to participate in research activities and the dissemination of information.
4. To develop and maintain a reciprocal communication process with the Chartered Society of Physiotherapy on all issues related to neurology.
5. To promote networking with related organisations and professional groups and improve the public's perception of neurological physiotherapy.
6. To encourage and participate in the setting of guidelines within appropriate areas of practice.
7. To be financially accountable for all ACPIN funds via the Treasurer and the ACPIN committee.

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FROM THE CHAIR

Greetings to you all and welcome to the Autumn 2007 edition of *Synapse*, a journal and newsletter which I hope you will agree continues to flourish and develop, allowing you all a forum to exchange news and views and, I hope, to feel confident in submitting your work for publication. Don't forget to use the vast resource of back issues, available on the website.

The ACPIN year continues at its usual frenetic pace, with national and executive committee members involved in conference organisation, changes to the membership system, consultations on national documents, sitting on related committees and panels and communication with other groups and the general public, providing you as members with the broadest representation possible.

I was fortunate earlier in the summer to be invited to speak to a symposium organised by Philips Research International in Eindhoven, Netherlands, entitled 'Barriers to Home Based Rehabilitation Technology.' Sue Mawson kindly (!) suggested to the conference team, with whom she has very close working links, that I might be a suitable person to give a clinical therapist's view on the topic. After overcoming the sweaty palms and shallow breathing associated with my first presentation of this type, I actually really enjoyed the whole experience and felt extremely proud to present the theory based, autonomous work of the UK neurotherapist. Some of the proposed technology is quite incredible and although there is currently a long way to go before it is entirely practicable for home use, the potential as an adjunct to skilled therapy input is remarkable. There were lots of opportunities for networking and I distributed a few copies of *Synapse* and even collared one delegate to speak at our March conference!

On that note, the committee are looking forward to hosting another residential event for the 2008 AGM, on 14th and 15th March back at the Hilton Northampton, this time on 'Acquired Brain Injury'. A provisional programme is available in *ACPIN News* on page 20 and an application form on page 38. Both can also be found on www.acpin.net. The programme is, we hope, diverse and challenging and we have already confirmed some leading speakers in the field. We hope that poster presentations will be strong at the event, please contact Julia Williamson, Research Officer, with your submissions. The usual networking and leisure opportunites will be available and we will again be hosting a gala dinner (but with reference to 2006, the spontaneous ipod disco is not guaranteed!) on the Friday evening. Do try to join us – we will be endeavoring to keep prices close to 2006 levels thanks to our positive financial situation.

This year's UK Stroke Forum programme is looking good and it is hoped that ACPIN representation will be strong. Thanks as ever are due to Prof Ann Ashburn for her hard work as ACPIN rep to the organising committee.

Siobhan Macauley has been doing some amazing work facilitating our involvement in Congress 2008, where ACPIN will be contributing to the neurology strand and as this goes to press we have just confirmed Ann Shumway-Cook as a lead speaker. Next year's event will be in Manchester and the CSP are hoping that the re-launch will be a major success. Have a look at the Events team report for further details and there will be more news on this one as it emerges.

I do hope that those of you with a special interest in stroke took up the opportunity to comment during the consultation on the DH document *A new ambition for stroke*. ACPIN, alongside AGILE, have made a formal response to the DH via the CSP and contributed to the *Frontline* piece on the issues raised. It is vital that we have a voice on such matters – please do not assume that you cannot contribute: I collate all comments received on such matters and use them to structure our responses to again ensure a wide representation.

Membership is up to 1,300 – so thank you! As you will be aware considerable work has gone on to modernise the database system and further developments are on the way. You will notice the absence of the usual membership form in this edition, this is due to a complete revamp of the payment system and you will be sent a form separately with some notes on the new payment method. Despite resigning from the executive in the spring, Mary Cramp has honourably continued her work on the database and I thank her and Jo Tuckey for all they have done. Please do bear with us on this – it would be foolhardy to not expect minor hiccups in the early stages.

Finally, my next job after writing this address is to plan for our autumn executive meeting, at which we are holding a workshop to review our roles and responsibilities, positively address some of the changes and challenges ahead of us and decide on future plans and projects. The committee should represent the views of their members, so if you have any comments or suggestions please do contact us.

Very best wishes

Nicola

PRESIDENT'S ADDRESS

Do service evaluations

and research both provide valuable evidence of effective interventions?

Sue Mawson MCSP Bsc (Hons) PhD

Clinicians and researchers find themselves having to comply with increasingly complex ethical, legal, clinical and research governance requirements surrounding data collection activity within the NHS. All research activity involving NHS patients (or their tissues), NHS staff and which is conducted in NHS premises, must comply with research governance requirements (DoH 2003). However, not all data collection should be defined and managed as research. Clinical audit, service development and service evaluation activities frequently involve collecting data from patients or staff. Such activities, I would argue provide, valuable information about the effectiveness and efficiency of our rehabilitation strategies.

In order to be able to make a case for the value of a service evaluation we need to ask a number of questions about the activities we use to provide evidence of effective interventions. So firstly, what is research? The Department of Health, within its framework for research governance, defines research as:

"the attempt to derive generalisable new knowledge by addressing clearly defined questions with systematic and rigorous methods" (DoH 2001 p 4 section 1.7)

However, this definition requires further clarification. Arguably, audit and service evaluation activities should also employ systematic and rigorous methods to collect and analyse data in order to answer a clearly defined clinical question. It would appear that the defining features distinguishing research from these other activities is the fact that research is concerned with generating new knowledge where no current reliable evidence exists and that the knowledge generated through research has application beyond the immediate context in which it was generated. In contrast to research, clinical audits and service evaluations are undertaken to generate information that is of local relevance to inform the development of high quality health care practice and/or services. In my trust the Clinical Audit and Effectiveness Unit has, for operational purposes, defined clinical audit as the measurement of existing practice against evidence-based clinical standards (see *Figure 1*).

However there are a range of other data collection activities taking place within the health service environment, which are neither research nor clinical audit. The purpose of these activities is two-fold. Firstly there are activities that provided innovative, evidence-based, service and practice developments and secondly there are activity analysis and evaluations of current practices or services. These two phenomena we labelled 'service review' activities and subsequently each was defined in an education tool kit developed by Sheffield teaching Hospitals (Somers et al 2006). Although it was necessary to make a distinction been the two aspects of service review, a strong case is made within the tool kit for a cyclical relationship between service development and evaluation and *vice versa*. It became clear that these newly defined activities did not require research governance however, it was important to ensure that patients, staff, and the organization were not exposed to unethical or risky activities. We therefore developed a clear ethical framework for service developments and service evaluations most of which fell within our professional accountability.

Clinical audit	1	Measures existing practice against ***evidence-based clinical standards***
Research	1	Generates new knowledge where there is **no or limited research evidence** available and which has the potential to be ***generalisable*** or ***transferable***

Figure 1

What is a service review? We defined this as being an activity undertaken within the organisation that involves service providers, service users or facilities, the purpose of which is to ensure the provision of high quality, effective and efficient care. It incorporates the development and evaluation of practice and services and relies on the use of data contained in current hospital information systems eg patient notes, databases, and surveys. Service review in the health service can enhance the local knowledge base and improve the quality of local decision-making by critically evaluating service delivery using a number of quality improvement tools. So service Review incorporates both **service/practice development** and **service/practice evaluation** (see *Figure 2 overleaf*).

The next question we need to ask is how are service evaluations and evaluation research different? There is considerable debate as to whether the evaluation of initiatives in health care is a separate activity from research or a particular kind of applied research. I would take the position that some evaluation activities in health care settings constitute research whereas others fall outside the remit of research and are referred to as service/practice evaluation. Evaluation research and service evaluation both require a well thought out design and the collection, analysis and interpretation of data. It can therefore be very difficult to differentiate between these activities (Gerrish and Mawson 2005). The two activities may also differ in terms of purpose and outcome. *Evaluation research* involves the use of systematic rigorous methods with the aim to describe and explain the effects of a new innovation in service delivery and to make generalisations about its worth. As with other forms of research the intention is to generate new knowledge that has applicability beyond the setting in which the evaluation is undertaken. *Service evaluations* also use systemic rigorous methods to describe and investigate the efficiency of an established

Service review	1	Incorporates both **service/practice development** and **service/practice evaluation**
	2	**Service/practice development** – introduces a change in service delivery or practice for which there is evidence derived from research or from other health/social care settings that have already introduced and evaluated the change. New developments should always be evaluated
	3	**Service/practice evaluation** – evaluates the ***effectiveness*** or efficiency of existing or new service/practice with the intention of generating information to inform local decision-making. This type of activity has sometimes been referred to as a clinical effectiveness study, base-line audit, activity analysis and organisational audit.

Figure 2

service or clinical intervention with the purpose of generating evidence that is of local significance. The aim of service evaluation is to generate information that can be used to inform local decision-making.

So what do we mean by evidence? Evidence can be regarded as "...data on which to base proof or to establish truth or falsehood" (*The New Collins Concise Dictionary*, 1985) In the Health and Social Care environment this can be translated into the provision of data (ie the systematic recording of clinically significant observations of change) on which to base proof of clinical effectiveness. The amount of evidence needs to be quantified in order to be able to judge whether the effect is real or a chance (random) occurrence. In a peer reviewed article of a quantitative research project the criteria used to establish this is based on probability. This increases the confidence the reader can have about new knowledge of treatment efficiency or disease prognosis. The quality of the study also needs to be established through critical appraisal, as a poorly designed project may produce statically significant results that have limited clinical value. The use of evidence to inform clinical decision-making and clinical practice is based on the synthesis of **informal** and **formal knowledge**.

Formal knowledge (external evidence, empirical knowledge) is knowledge that has been validated by independent scientific scrutiny. For example textbooks and peer reviewed publications. **Informal knowledge** is knowledge that has not been validated by independent scientific scrutiny. For example, unpublished reports, conference papers, and evidence of effectiveness from service evaluations.

There has been considerable debate over the last decade around the small proportion of medical treatments that are based on sound scientific evidence (Smith 1991) and about the wisdom of basing clinical decisions and practice solely on the findings of quantitative research (Mant 1999, Rolf 1999).

Perhaps herein lies the answer, where appropriate research can provide the **formal knowledge** and evidence of causality based on probability statistics. The research must be rigorous and use measurements that are valid and reliable. However, a well designed service evaluation that uses rigorous methods of measurement that are also valid and reliable to establish not the causality so desired in a research study, can also provide evidence of effective and efficient service delivery. This **informal knowledge** must also be valued by the organization, the patients, and their carers, for whom we seek to ensure a quality service.

"... external clinical evidence can inform, but can never replace, individual clinical expertise, and it is this expertise that decides whether the external (formal) evidence applies to the individual patient at all and, if so, how it should be integrated into a clinical decisions." (Sackett et al 1996).

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ARTICLE 1

Coordination of arm and hand

in reach-to-grasp following stroke

Paulette M van Vliet PhD • Research Fellow School of Health Sciences University of Birmingham

In this discussion paper, it will be argued that information about coordination of reach-to-grasp and how this changes after stroke is important knowledge for therapists. An outline of how reach-to-grasp is normally coordinated will be given, then the changes that occur in coordination after stroke will be described. Particular patient groups who are prone to coordination difficulties will be identified and the clinical implications of the current research will be discussed.

WHY IS COORDINATION OF REACH-TO-GRASP ESSENTIAL KNOWLEDGE?

Coordination is a motor control process in which motor commands to one effector depend on the predicted state of another effector (Diedricjsen et al 2007). Coordination of reach-to-grasp is interesting to therapists because it provides a more detailed understanding of the motor control of upper limb than is typically used in the clinical setting. Therapy tends to be aimed generally at either or all of the following: practising whole upper limb movement to increase functional ability, training particular components of upper limb movement (eg shoulder flexion, elbow extension), increasing activation of particular muscles or muscle groups and normalising tone (Carr and Shepherd 2003; Bobath 1990). However, as will be seen in the discussion below, more specific deficits have been identified in the reaching of stroke patients. If these deficits lead to new targeted treatment interventions, it may be that the outcome of upper limb after stroke can be improved. Currently, following stroke, 85% of patients experience upper limb impairment (Parker et al 1986) and less than 56% have regained useful upper limb function at six months (Nakayama et al 1994)). So improved treatments are needed to increase quality life for patients.

HOW IS REACH-TO-GRASP COORDINATED IN HEALTHY SUBJECTS?

The kinematic analysis of reach-to-grasp in healthy subjects reveals at least two components (Jeannerod 1984). For a given movement the hand follows a characteristic path and trajectory as it moves towards an object, described as the 'transport' component (change over time of the position of the wrist marker) and the hand opens and close on the object, the 'grasp' component (change over time of the distance between the index finger and thumb markers). Neurophysiological evidence supports separate but interdependent visuomotor control channels for these two components (Sakata and Taira 1997; Ungerleider et al 1982; Goodale and Milner 1992). Transport and grasp must be coordinated to ensure that the object is grasped successfully. There is evidence that an invariant temporal relationship exists between the two components, where the start time of the opening of the hand is correlated with the start time of hand movement towards the object (Jeannerod and Biguer 1982; Jeannerod 1984), and the time of maximum hand opening is correlated with the time of peak deceleration of the hand (Jeannerod 1984; Gentilucci et al 1991; Castiello et al 1993).

A degree of temporal interdependence between the components is seen in experimental conditions, when one component adjusts in response to manipulations of the other component. For example, a faster transport results in an increased maximum grip aperture size (Wing et al 1986; Wallace et al 1990). Similarly, when grasping objects of smaller sizes, a proportionally longer deceleration phase and an increase in movement duration occurs (Gentilucci et al 1991; Marteniuk et al 1990; Castiello et al 1992; Bootsma et al 1994). Moreover, performing an additional opening and closing of the grasp during the transport phase, causes a longer movement duration with a high correlation between peak velocity of the wrist and the second maximum grip aperture (Timman et al 1996).

WHICH PATIENTS HAVE PROBLEMS WITH COORDINATION OF REACH-TO-GRASP?

Areas of the brain that have been identified as having particular involvement in coordination of reach-to-grasp include posterior parietal cortex (Sakata and Taira 1994; Sakata et al 1997), Area 6 of premotor cortex (Rizzolati et al 1988; Jeannerod 1994; Rand et al 2000), prefrontal cortex (Jeannerod 1994) and the cerebellum (Rand et al 2000). Patients with lesions in both parietal lobe and the cerebellum can demonstrate deficits in coordination, but their deficits are different. In a heterogenous group of patients with various lesion sites, Michaelsen et al (2004) found temporal coordination between grasp and transport to be largely preserved, with percentage time of maximum aperture (percentage of movement duration) and maximum aperture size not significantly different from controls and maximum aperture occurring in the deceleration phase, as in healthy subjects. However, in a small number of patients, hand opening was either significantly delayed or grip aperture was held constant throughout the movement.

The parietal lobe has a main function of processing multimodal sensory inputs, used for the feedback information for motor programs (Ghika et al 1998). In parietal lesions of the anterior intraparietal sulcus Binkofsky et al (1998) found that whilst transport was relatively preserved, there was poor hand opening in the acceleration phase, the grasp aperture in the deceleration phase was increased, there was a later maximum grip aperture with respect to movement duration compared to control subjects and performance was more variable. In another study of a group of patients with middle cerebral artery lesions it was demonstrated that there was a temporal coupling between grasp and transport components at the start of the reach and at the time of maximum aperture but the components were not as tightly coupled as for healthy control subjects, especially for larger objects (Van Vliet, in press). In a further study of 32 patients with acute pure parietal stroke, 100% of these had difficulties with 'anticipatory shaping of the fingers to the configuration of the target object', whereas the direction of the hand trajectory was less frequently abnormal (Ghika et al 1998). Timing and sequencing incoordination between the proximal and distal segments of the limbs were also reported. The parietal lobe, particularly the posterior parietal cortex (PPC) is also supposed to have a special role in online feedforward control of aimed movements (Desmurget et al 1999; Buneo and Andersen 2006). A model of control of reach-to-grasp by Hoff and Arbib (1993) (supported by substantive data from both computer simulation and real subjects) proposes that the reach is planned with respect to the end goal of the movement, so that the time taken to close the hand on the object is consistent with the time taken to transport the hand to the object. There is a two way interaction between the neural processes controlling transport and grasp, so that the expected duration to the target, of each of these trajectories, is monitored and adjusted so that they are temporally matched. In order for this to occur, a feedforward mechanism has been proposed that works by comparing target position with an instantaneous internal estimate of hand position, and this information is used to modify the ongoing motor command. The PPC has been suggested as having an important role in this feedforward process.

Cerebellar damage is associated with both timing and coordination deficits (Diedricjsen et al 2007). Patients tend to have hypermetric movements (Rand et al 2000; Topka et al 1998) and with coordination of transport and grasp components in particular, the time of maximum aperture occurs earlier and is more variable compared to healthy control subjects, and the size of maximum aperture is larger (Rand et al 2000) The hypermetria has been explained as a compensation for increased spatial variability in the movements of cerebellar patients and the increased temporal variability indicates a cerebellar role in regulating the temporal relationship of grasp and transport components in reaching (Rand et al 2000). Patients with cerebellar damage also demonstrate errors in final position when moving to targets on a computer screen. The errors were primarily caused by motor planning deficits (Fisher et al 2006). Also, a unilateral cerebellar lesion affects the movements of both ispilateral and contralateral arms, demonstrated in an experiment where subjects tracked targets on a computer screen, and showed an increased time lag and lower peak velocity compared to controls (Immisch et al 2003).

Thus both parietal and cerebellar lesions affect coordination of arm movement, with parietal patients likely to have difficulties with sensorimotor updating during movement performance, and cerebellar patients likely to have problems with timing, and hypermetria, that may reflect planning ability more than updating. Further research is needed to fully understand the role of these areas in coordination of reach-to-grasp.

CLINICAL IMPLICATIONS

The above research findings provide a basis for the development of specific interventions for different groups of patients with deficits of coordination of reach-to-grasp. At this stage, suggestions are necessarily conjectural, as although different deficits have begun to be identified, little development and testing of training interventions has occurred. However, some general guiding principles are suggested by the research.

Firstly, it is likely to be helpful if patients practise tasks that involve the use of grasp and transport together, where possible, to necessitate activation of temporally linked central commands for arm and hand. Secondly, since the start of transport and grasp are not as tightly coupled as in controls, practice could concentrate on planning and executing the two components together so that opening of the hand and maximum aperture are not delayed.

To further develop ability to time grasp and transport components in different situations, reach-to-grasp could be practised at different speeds and with different size objects, with an emphasis on achieving grasp of larger objects, which appear to be more difficult for them. Also to decrease variability, the number of repetitions of these movements may need to be large. These suggestions are more specific than those usually described in conventional physiotherapy, being targeted at the timing of reach-to-grasp in particular and so have the potential to improve the effectiveness of training of this aspect of upper limb function. Further research is required to examine whether this potential can be realized. There is reason to expect that improvements may be gained by such targeted therapy. The fact that some of the central planning of coordination of reach-to-grasp is preserved shows there are basic motor programs to build upon. There is some evidence that movement patterns of people with stroke can be improved with training (Winstein et al 1999) and improvement in kinematics of reaching in particular have been observed over time during recovery (van Vliet et al 1995).

In conclusion, there is growing evidence of specific deficits in different patient groups for arm and hand coordination after stroke. Although this research is at an early stage, it is likely to lead to specific therapeutic interventions in the future that are targeted to group specific difficulties.

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ARTICLE 2

The taboo subject!

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Emily is doubly incontinent. She is totally dependent on her carers and often seeks attention during the night. Her communication skills are limited and she always requires assistance with dressing and feeding – do you recognise Emily? Could this be one of your patients? In fact Emily is a baby and her carers accept all the associated dependence. As her mental and physical capacities develop then her independence is gained. Continence is dependent on the development of sufficient strength in the pelvic floor and sphincter muscles, development of frontal areas of the brain to appreciate the signals of bladder fullness or call to stool, and the ability to link the inhibition of voiding to voluntary/involuntary contraction of the sphincters. It is only when these links are developed, along with some encouragement from her family 'potty training' that she becomes continent.

NEUROLOGICAL CONTROL

Neurological conditions may present with a slightly different type of bladder dysfunction, and within each condition patients may have a diversity of symptoms depending on the stage of their disease and the sites affected. Voiding is a spinal reflex which is modulated by the central nervous system (CNS: brain and spinal cord) and an infarct to any area of the CNS may cause problems with control. For example, damage to the frontal lobe or the pons leads to frequency, urgency, urge incontinence and possible nocturia (night time voiding) or nocturnal enuresis (bed wetting, Nazarko 1998). Damage to the brain stem can affect the pontine micturition centre which can result in hesitancy, bladder dyssynergia with resulting retention and overflow incontinence; and if there is damage to the spinal cord – the conducting pathway – this causes interruption of these influences from the brain leading to an imbalance of signals. The autonomic nervous system which regulates the actions of the internal organs under involuntary control also plays a part, with storage mainly being controlled by the sympathetic hypogastric nerve (T10-L2) and voiding is under the influence of the parasympathetic pelvic nerve (S2-4). The former sends signals to the bladder not to contract and signals to the pelvic floor muscles to contract, conversely the latter sends signals to the bladder to contract and signals to the pelvic floor to relax.

The bladder and bowel are unusual in that they are also under somatic control (pelvic and pudendal nerves) – we therefore can have some voluntary influence. By actively contracting the pelvic floor muscles leakage can be prevented when the bladder is put under stress eg coughing, jumping etc. Contracting the pelvic floor also initiates a reflex relaxation of the detrusor muscle of the bladder and this can allow the person to defer going to the toilet and reduce urgency and frequency.

THREE NEUROLOGICAL CONDITIONS

1. Stroke

The facts relating to urinary incontinence following a stroke are quite frightening. On admission 40-60% will experience incontinence, with 25% still having problems on hospital discharge and 15% will remain incontinent at one year. There is also evidence that patients who are incontinent during the acute stage after stroke are four times more likely to be institutionalised after one year (Kolominsky-Rabas 2003). Faecal incontinence can affect 31%-40% on admission, 18% will experience this at discharge and 7%-9% will experience faecal incontinence six months after the stroke. 59% of those who experience FI are dead within six months, compared to 7% of patients who initially had no FI. The causes of incontinence are multifactorial. As stated above, if the damage is relative to the blood supply to the frontal lobe (middle and anterior cerebral arteries) frequency, urgency, urge incontinence and possibly nocturia, or nocturnal enuresis occurs (Nakayama et al 1997). A brain stem stroke affecting the pontine micturition centre can result in hesitancy and bladder dyssynergia, with resulting retention and overflow incontinence, as the ability to co-ordinate micturition is impaired (Olsen-Ventland 2003). Other factors are relative to functional incapacity, eg cognitive dysfunction, decreased mobility, eyesight and dexterity, depression, constipation, infection and some medications can all contribute. Aphasic patients are two to three times more likely to be incontinent (Gelber et al 1993). Environmental factors such as inadequate toilet facilities, poor standards of cleanliness and lack of privacy can also play a part as can negative attitudes of health care providers. In addition it must be remembered that some of these patients will have had problems before their stroke and general high predictors of incontinence include obesity, diabetes, prostate or gynaecological problems.

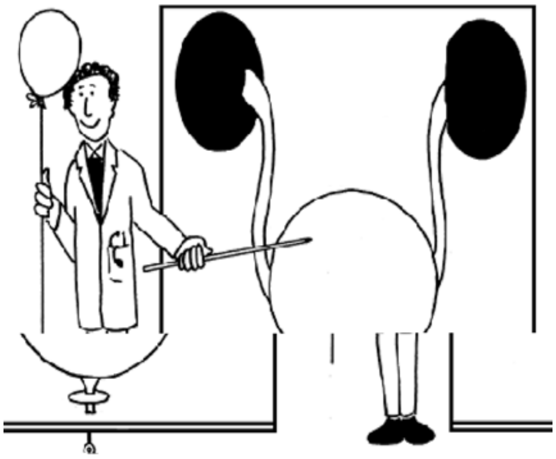
2. Multiple sclerosis

Multiple sclerosis is the most common cause of non-traumatic neurological dysfunction in young adults. Lower urinary tract dysfunction (LUTD) affects approximately 75% of people with multiple sclerosis at some stage, and more than 50% within three to five years of diagnosis (Kalsi and Fowler 2005; Nortvedt et al 2007). The prevailing symptoms depend on the location of the most inferior lesion, and often change as the disease waxes and wanes. The most common symptom is urgency leading to frequency and sometimes incontinence if the toilet is not reached in time, however, due to a dysnnergia between the muscles of the pelvic floor not relaxing while the bladder is contracting, the patient may also find it difficult to empty the bladder completely and a vicious circle ensues (DasGupta and Fowler 2003).

3. Parkinson's disease

Parkinson's disease is the second most common neurological condition resulting from degeneration of the substantia nigra with an average onset age between 50 and 60 years (Bertram 2005). The reported incidence of lower urinary tract dysfunction in patients with Parkinson's disease ranges from 27% to 70% (Araki and Kuno 2000; Winge et al 2006). The basal ganglia, including the substantia nigra, have been reported to have inhibitory effects on the micturition reflex, therefore, degeneration of dopaminergic neurons of the substantia nigra might promote irritative symptoms in this disease. The predominant irritative symptoms include nocturia (86%), frequency (71%) and urinary urgency (68%), with an increase in bothersomeness as the disease progresses (Winge et al 2006). Studies also report obstructive symptoms, incomplete emptying being the most frequently reported (Olanow and Koller 1998; Araki and Kuno 2000).

Figure 1 (below) and Figure 2 (right) ***Showing the correct synnergia between the bladder and the pelvic floor muscles***



THE ROLE OF THE NEUROPHYSIOTHERAPIST

How can the neurophysiotherapist help with the control of continence? A multi-disciplinary approach is essential. Doctors, nurses, occupational therapists, physiotherapists, carers and families all have a part to play in maximizing the quality of life of those affected by bladder and bowel dysfunction. However, the physiotherapist because of the assessments carried out and the time spent with individual patients is in a unique setting and often is the one to whom patients confide in first. It is therefore important to understand why the patient is having problems and a simple explanation is often helpful. Advice such as maintaining a good fluid balance is important, and there is evidence that pelvic floor muscle training, sometimes with the aid of biofeedback or electrical stimulation can help or restore continence in people with MS and following a stroke. Dumoulin et al (2005) undertook a review relating to incontinence following a stroke and cited four RCTS, one cohort study and recommendations from three clinical practice guidelines. These authors concluded that there was limited evidence that bladder re-training with urge suppression in combination with pelvic floor exercises results in reduction of urinary incontinence in males with stroke, but further research was needed. A study by Tibaek et al (2004) was not completed for this review, but is the only randomised controlled study comparing pelvic floor muscle training (n=14) to a control group (n=12) identified within this population. The intervention group received vaginal assessment and individual instruction of pelvic floor exercises which was followed with twelve weeks of attendance at a group session combined with home exercises and advice. However, this study is an example of how difficult it is to undertake studies within this population as they failed to meet their sample size despite screening 390 medical records, 129 of which were suitable to take part but only 26 were recruited. They reported a positive effect on frequency, number of leakage episodes and pelvic floor dysfunction.

There were no studies identified which reported solely on the use of pelvic floor muscle training in people with Parkinson's Disease so there is no evidence of effectiveness. However, the lack of side effects with this intervention means it can be suggested to people with incontinence.

There is slightly more evidence of the benefits of pelvic floor muscle training with and without biofeedback and electrical stimulation within the MS population. A review undertaken by the author identified several studies which indicated benefit (Klarskov et al 1994; Primus et al 1996; Vahtera et al 1997; De Ridder et al 1998,1999) and the author undertook two randomised controlled studies both of which reported significant benefit in reduction of leakage and improved emptying following pelvic floor muscle training, EMG Biofeedback and Intravaginal Electrical Stimulation (McClurg et al 2006; 2007). Although these interventions are more specific to a Women's Health Physiotherapist/Continence

Figure 3 (left) ***Showing incontinence due to weak pelvic floor muscles***

Figure 4 (above) ***Showing dyssynergia between the bladder and pelvic floor muscles***

Physiotherapist it would seem practical for neurophysiotherapists to instruct patients in the early stages of MS, following a relapse, and after a stroke on how to carry out pelvic floor muscle training exercises which may help to maintain continence – like all muscles if you do not use them you lose them. It should also be remembered that not all continence problems are specific to MS – one in three women in the non-neurological population have problems with continence.

If you feel the patient needs further help then the local continence physiotherapist, continence advisor and organisations such as INCONTACT can all provide further treatment and information.

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ARTICLE 3

A new ambition for stroke

a consultation on a national strategy
ACPIN response to the CSP

Nicola Hancock • Honorary Chair ACPIN

As many of you will be aware, the consultation period on this document has come to an end. After consulting members via iCSP and regional groups, ACPIN compiled and sent this response.

It is heartening to see that stroke remains a high priority for the Department of Health and that due consideration is being given to the enormity of the impact of a stroke on the individual, their family and friends and the health economy as a whole, both in the acute phase and the longer term. There has been a tremendous amount of work done by therapists in recent years to raise the profile of neurorehabilitation and the new strategy allows us a framework on which to build further in the field of stroke.

The document is clearly laid out with an emphasis on four key chapters which makes it easily accessible to therapists in all areas of stroke rehabilitation, from very acute management to longer term treatment in the community. Each chapter provides key aims and recommendations.

Raising the profile of stroke as a treatable condition with the ***Time is Brain*** section provides a valuable emphasis on the hyper-acute management and makes it clear that very early specialist treatment can have profound effects on long term mortality and residual function. Even at this very early stage, physiotherapy can play a vital part in terms of positioning, respiratory care and advice to other team members and this perhaps could have received inclusion in the document. ACPIN would welcome the inclusion of further information on this area. The NICE guideline group, which includes specialist physiotherapy input, is currently formulating recommendations in this area.

It is good to see that the profile of therapy is very high throughout the chapter on ***Life after Stroke*** and an emphasis is placed on good quality, tailored, patient centred rehabilitation programmes, something that is vital for commissioners to consider. Commissioning anything less than a high quality specialist service for stroke survivors and their families, at any point in their pathway, does them and our profession a great injustice. We are obviously delighted with the section stating that rehabilitation does work and now need to ensure that our profile within stroke frameworks, both locally and nationally, remains high. ACPIN are pleased to see the recognition of the need for specialist teams, but these must be in place at all points of the patient journey after stroke, including extension of resources to allow specialist input into nursing and residential homes for prevention of complications and identification of potential improvements in function. It is of concern that in the most recent National Sentinel Audit of Stroke (RCP 2006) only 32% of services have stroke-specialist community teams. The issue of respite care has also been raised. Some therapists are involved in this aspect of care and feel its representation within the document was weak.

Chapter three, ***working together*** discusses structure, quality and workforce development and we are pleased with the recognition that existing staff numbers and skill mix profiles are insufficient to meet the current and future needs of stroke survivors. Involving commissioners in post development and training is a useful proposal and therapy posts must be a key part of any service developments, including into areas previously largely held by nursing staff, such as case management. Current physiotherapy staffing on stroke units is very variable (NSAS 2006 RCP)

In principle, seven day therapy services would be (are, in some places) a positive development, but the huge resource and skill mix issues raised need further investigation before effective services can be developed.

Members have raised concern about specialist staffing numbers in local, non-hospital based services and in particular feel that much more must be done to support the long-term rehabilitation of younger stroke survivors.

The plan for a nationally recognised training and education programme is to be applauded but sufficient resource to allow specialist staff to input into the programme, and less specialist staff to benefit from it, must be enabled. ACPIN would have some concern about adopting profiles from the National Occupational Standards as having reviewed the draft of these standards, they are not particularly specific and may not as yet present an appropriate tool to facilitate change in this case.

Finally we welcome the emphasis on raising public and professional awareness of this life-changing condition – as therapists we have known of the devastation caused by stroke first hand for many years and increasing knowledge in the wider public can only help progress towards the goals set out in the document.

2008 membership update

The current membership renewal/application process is changing

A Direct Debit system of payment is to be introduced

All current members will be notified of the new procedure before the year end

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FOCUS ON...

Clinical measurement

in neurological rehabilitation

Sue Mawson MCSP Bsc (Hons) PhD

In the first two articles for *Synapse* (Mawson 2005, Mawson 2006) I focused on describing and discussing the concept of evidence. What this means in a healthcare environment, the problems of using an evidence based hierarch, and the issue of interpreting research results based on statistical significance without considering clinical significance. In the second article I took this a step further by looking more specifically at the research methods we use to provide the evidence of effect and causality. I presented to the reader the difference between centre tendency theorists who would use an experimental research design, aggregating outcome data to the group mean value and the concept of variance where individual variations in responses to interventions is analysed to provide more valuable data on which to base clinical decisions and practice.

This final paper will describe and discuss what we mean by measurement, what types of measuring scales we use to provide evidence of effective intervention, what properties those measure have and how we frequently abuse measurement theory when using mathematic techniques inappropriate for the level of data collected. Again I will reiterate the problems of statistical significance and clinical significance and how this can affect the usefulness of the data provided.

Firstly, we need to establish how measurement is defined. Measurement is the assignment of numbers to objects, persons or events according to rules (Stevens 1946, Ellis 1968).

"Measurement transforms certain attributes of the world into numbers, which can then be summarised, organised and analysed by statistical procedures." (Stein & Cutler 1996)

These definitions need to be further developed when trying to understand the concept of measurement in a health environment, where we need to measure changes in human subjects, rather than in an inanimate object.

An outcome measure when used in a health environment:

- provides evidence of change in one or more patient characteristics over time
- must relate to changes that are clinically important to the patient
- requires tools that quantify the change appropriately, identifying small, clinically important differences.

The rules of arithmetic, which have been around for centuries, allow for only four types of scale. Scales do not quantify the attribute they denote quantities of the attribute to be measured, these quantities are defined by calibration of the scale. The rules described define the relationship between the quantities denoted by the points on a scale.

The rules described are themselves based on measurement theory originally advocated by Stevens (1959) and explained with examples for the less able reader by Senders (1954). Further more we also need to consider statistical theory, which dictates how we can analyse the data provided following the transformation of the attribute into a value. We need to establish whether the value is a 'true unit of measurement' or whether it is a definition of an attribute rather than a true unit. For each of the scales I will describe the characteristics, give examples of the scale in healthcare and suggest how data provided can be mathematically and statistically analysed. This is an important issue as Michels (1983) points out in his discussion paper on the theory of measurement in physical therapy suggesting that;

"…the assignment of numerals to categories on the nominal or ordinal scale – especially the ordinal – produces all kinds of mischief because people assume, probably without careful thinking, that such numerals represent numbers or amounts of whatever the scale intents to measure." (Michels 1983)

Some authors (Song et al 2006) would suggest that this is acceptable practice. However, I suggest that in the analysis of clinical trial data, to contravene the theories on which scales are based stifles the development of knowledge about the outcomes of intervention. Science is about truthfulness; "Matter is understood most competently with measurement and numbers." writes Lynn White jr, in his article *Science and the Sense of Self* (1978).

THE NOMINAL SCALE

- measurements are labels which show qualitative differences
- measurements can be counted
- measurements cannot be added, subtracted, multiplied or divided even when the labels are replaced by numbers because the measurements are not defined in terms of a unit of measure.

A true unit of measure is one that has been defined, validated and agreed internationally within the scientific community. Such units are the metre, first defined by Napoleon during the French wars, the litre and the gram. Examples of nominal scales would be male/ female; dead/alive; left or right CVA. We would often collect this data for audit purposes or to describe our sample if we have undertaken a service evaluation or research study. In health enquiries we often us the Chi square test for associations when analysing this type of nominal data.

THE ORDINAL SCALE

- measurements are labels which show order, commonly numerals (numbers which do now denote quantities)
- measurements can be counted
- measurements cannot be added, subtracted, multiplied or divided even when the labels are replaced by numbers because the measurements are not defined in terms of a unit of measure.

There are many scales that pertain to be ordinal scale in the neurorehabilitation environment. The scales with which we seek to measure changes in functional ability and 'activities of daily living' (ADL), such as the Berg Balance Scale, the Motor Assessment Scale, the Barthel Index, and the Functional Independence Measure, to name but a few, are in fact composites of ordinal scales. The Barthel Index contains a number of items each an individual ordinal scale quantifying different aspects of a person's disability/ability in for example feeding, dressing, and toileting.

In an ordinal scale the number corresponding to the definition does not have a 'true value' therefore it cannot be added, subtracted, multiplied or divided. To do so would be illogical and potentially hazardous if used to measure changes in health status.

Take for example the Barthel Index, frequently criticised for its use as an interval scale of measurement (Tennent et al 1996,) The Index in the original version consists of ten items, or individual ordinal scales, that denote unspecified quantities of change in ADL such as, toileting, feeding, stairs, dressing, each of which may be the outcome of multi disciplinary interventions. If we take two of the items and look at the effect of summing we can see the lack of uniqueness necessary a valid analysis of ordinal data (*Table 1*).

	Unable to perform	Needs assistance	Fully independent
Bowel control	0	1	2
Stairs climbing	0	1	2

Table 1

Respondents may achieve a summed score of 0,1,2,3 or 4. Would a score of 2 be unique? Obviously not, as a score of 2 could indicate a combination of 2+0, 1+1, or 0+2. Notice that the average of 2+0, 1+1, and 0+2 is 1, suggesting the same level of need in each case. This is not correct because the type and amount of need is different in each case. These problems are compounded when admission and discharge scores are compared. The analyst, or evidence-based practitioner reading a research paper has no idea where the change occurred. Summing of the item scores in the Index provides an average 'assessment' of average disability, which can be used by the multi disciplinary team to develop average (standard) intervention and care programmes, which are not patient specific. To use the data to attempt to measure changes over time can result in a loss of clinical data the effect of which is to show no change when an improvement on one item is balanced by a deterioration in another item.

Composite scales are therefore notoriously difficult to analyse especially where the scale consists of a number of individual scales such as the Berg Balance Scale or the Rivermead ADL Scale. Where there is only one scale for example the Rankin Handicap Scale, statistical test can be used such as the Mann-Whitney or the Wilcoxen depending on the design of the study implemented (Bowers 1997).

A number of authors (Song et al 2006, Gaito 1980) would suggest that parametric statistical tests could be used when analysing ordinal data. A statistic test is parametric because it uses the parameters of a normal probability distribution, which is the mean and standard deviation, where a true unit of measure has been collected. It is again illogical to use such tests when there is no such unit of measure and where there is therefore no mean or standard deviation.

THE INTERVAL SCALE

- measurements are numbers which show amounts of differences (the amount by which one measurement is larger than another)
- measurements can be counted
- measurements can be added and subtracted, but cannot be multiplied or divided because the measurements are defined in terms of a unit of measure but not an absolute zero.

An example of an interval scale is the centigrade scale, as this does not have an absolute zero. The properties of the scale ensure that a measurement on this scale has an unambiguous or singular meaning, is a true unit of measure and is objective. From a mathematical perspective the data provided by an interval scale can be summed and a arithmetic mean and standard deviation calculated. Statistically if the requirements of randomisation are used the t-test can be applied to establish statistical significance when used in a clinical trial.

THE RATIO SCALE

- measurements are numbers which show a ratio of differences (the number of times one measurement is larger than another)
- measurements can be counted
- measurements can be added, subtracted, multiplied and divided, because the measurements are defined in terms of a true unit of measurement and an absolute zero.

An example of a ratio scale is distance ('timed get up and go' test). As with the interval scale the properties of the ratio scale ensures that a measurement on this scale has an unambiguous or singular meaning, is a true unit of measure and is objective. From a mathematical perspective the data provided by a ratio scale can be summed and a arithmetic mean and standard deviation calculated. Statistically if the requirements of randomisation are fulfilled the t-test can be applied to establish statistical significance when used in a clinical trial.

At this point it might be valuable to return to the original definitions of measurement where I suggested that measurements of animate rather than inanimate objects was an important distinction in a health environment. Let us consider the characteristic of the ratio scale outline above. If we where an architect using the metre to measure the height of a building then the measurement would fulfil all of the required properties of a ratio scale. However, if we were measuring the height of a patient, a human subject cannot have 'zero height' that is an absolute zero. Similarly, the architect may use degrees (angles) to calculate loads when constructing a building, to assume that the measurement is ratio would be correct, as an absolute zero exists. However, when angles are used in the measurement of joints (goniometry) in a human subject, the human anatomy dictates that the angle would rarely be zero, therefore when used for this purpose a ratio level of measurement cannot be assumed.

It can been seen from these descriptions that the interval and ratio scales are the most powerful scales mathematically, having the added benefit of providing the measurements required for powerful inferential statistical analysis. However for the rehabilitation specialist there is an inherent problem with the data provided by the interval and ratio scales, and that is one of clinical significance. What is the clinical meaning of a change? In simple terms, what is the impact on the health and well being of the patient when a change occurs in, for example, the time taken to walk a certain distance? It may be equally important to walk slower rather than faster. This is perhaps the reason why we like ordinal scales as they contain the definitions of the attribute to be measured: balance, dressing, stairs, the attribute we are trying to rehabilitate and the goal the patient hopes to achieve as a result of therapeutic intervention.

One measuring system that fulfils all the requirements of measurement theory, is ordinal in nature and is based on patient centred care, is the TELER method (le Roux 2003). Not only does this method enable us to quantify changes in clinically important attributes of the patient's world but also allows us to analyse the change in an appropriate way and demonstrate statistically significant change, that is, change that is not a random event.

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NEWS ACPIN

ACPIN 2008 national conference and AGM latest

Acquired Brain Injury: Competency with the complex
This is the current programme as of September 2007:

Friday 14 March (with Gala Dinner in the evening)

- **Lecture 1** Acute management of brain injury: current thinking Dr Martin Smith
- **Lecture 2** Physiotherapy management in early brain injury: practical, proactive intervention Adrian Capp MCSP
- **Lecture 3** Cochrane review: botulinum toxin for spasticity in non-progressive brain lesions Bernie Lyons MCSP
- **Lecture 4** Interactive session with poster authors
- **Lecture 5** Innovative technology in acquired brain injury rehabilitation Dr Nigel Harris

Saturday 15 March

- **Lecture 6** Models of neurorehabilitation with ABI Speaker TBC
- **Lecture 7** Unsticking the stuck: physiotherapy with severe and complex post-trauma deficit Jo Tuckey MCSP
- **Lecture 8** Challenging behaviour after brain injury: the physiotherapist's role Gina Sargeant MCSP
- **Lecture 9** A patient's perspective Nick Headley
- **Lecture 10** Discharged and forgotten: managing the effects of minor brain injury Speaker TBC
- **Lecture 11** The challenge of community rehabilitation: an interdisciplinary pathway for acquired brain injury Vicky Richards

Map to take advantage of expertise within ACPIN membership

Over the years, ACPIN have increased their profile within the physiotherapy and healthcare community. Now, widely respected, ACPIN plays a vital role in the review of a wide range of high level documents from the Department of Health, NICE, and the government with, and on behalf of, the CSP, charities and voluntary agencies.

We are launching a project to try and take a wider advantage of the expertise within ACPIN. We are making use of our regional connections to survey the membership to get opinions and suggestions regarding the variety of issues that are presented to us.

The aim of the project is to develop an 'expert map'. The map would include the names and contact details of people that would be willing to participate in consultation when ACPIN is asked for its views. This would include people with all levels of experience, and from a wide variety of perspectives including content specialty, management, patient views, clinician view, and local delivery issues.

It is hoped that a proforma will be developed to allow comments to be expressed within the context of the individual and their working environment. These comments will then be collated by the executive committee to inform the response from ACPIN. There is invariably a tight time frame on these responses, and this would need to be kept in mind by any volunteers.

Over the next few months, the regional representatives will be approaching members in their region for volunteers to be part of this work. This is a fantastic opportunity for neurophysiotherapists to express their views at the highest level. Anyone interested in becoming part of our expert map should contact their regional representative.

Communications sub-group report

This year the regional representatives pack has been updated by Julia Williamson. The communications group its finalising is format and will get it out in electronic form to all regional representatives following the next committee meeting.

The group is also approaching sponsors for the residential conference in March 2008.

We have decided not to submit motions to ARC 2008 due to the lack of success in the previous years (not through lack of trying) and the close proximity time-wise to the residential conference.

Interactive CSP update

iCSP (www.interactivecsp.org.uk) has been available nationwide for over a year now and is constantly being updated in response to members suggestions.

The neurology network now has 4,584 registered users and receives over 200 hits per week. The neurology network is owned by ACPIN and has an important role in achieving the aims of ACPIN.

Most of the items submitted to the neurology network are discussions. These allow exchange of ideas and views as well as requests for information. Do search the network to check if there is already a discussion on a topic and remember only to use the email members option if an urgent reply is needed. If you have an example of good practice you wish to share use the 'sharing practice' area.

The network is run for its members and it can be a powerful tool for receiving feedback and ideas for ACPIN, for instance commenting on draft guidelines so don't be shy in responding.

The 2nd UK Stroke Forum is in December and the topic for the ACPIN conference in March is 'Acquired Brain Injury' so submissions in those areas will be particularly topical.

Keep up the good work and let us know how useful the network is (you could start a discussion).

Events update for Autumn 2007

Report by Anne Rodger

ACPIN was not involved in organising a programme at the CSP Congress this Autumn (in line with the CSP guidelines of special interest groups only organising two programmes every three years). In order for ACPIN members to support and attend the UK Stroke Forum again (this year in Harrogate on the 4th- 6th December 2007) we also decided against organising an autumn conference.

We are therefore looking forward to a busy year in 2008. We have organised a residential conference at the Northampton Hilton on the 14th-15th March 2008 on 'Acquired Brain Injury: competency with the complex'. The conference aims to be interesting to a wide audience: from those working in specialist brain injury centres to those who occasionally treat this patient group at some stage in the patient's journey. There is an excellent array of speakers. The acute medical and physiotherapy management, rehabilitation process, spasticity management, behavioural management, challenges in the community, patient perspective and innovative technology will all be covered.

The CSP Congress to be held in Manchester on 17th-18th October 2008 is also being discussed at present. The focus is on 'Moving Physiotherapy Forward'. Congress has been redesigned and there will be four clinical areas: musculoskeletal, health and well being, neurology and cardiopulmonary. Entwined within these four areas are the themes of research and development, education and professional issues. The programme is in a draft phase at the moment with international and national speakers being invited.

Further details of both will be in *Frontline* and *Synapse*, and on our website (www.acpin.net) closer to the time.

ACPIN NATIONAL CONFERENCE & AGM

ACQUIRED BRAIN INJURY

Competency with the complex

FRIDAY 14 TO SATURDAY 15 MARCH 2008

THE HILTON HOTEL NORTHAMPTON

An essential residential conference for all those working in specialist brain injury centres to those who occasionally treat this patient group at some stage in the patient's journey. With an excellent range of speakers covering acute medical and physiotherapy management, the rehabilitation process, spasticity management, behavioural management, challenges in the community and innovative technology. See www.acpin.net for further details.

SEE PAGE 38 FOR AN APPLICATION FORM

THE ASSOCIATION OF CHARTERED PHYSIOTHERAPISTS
INTERESTED IN NEUROLOGY

NEWS GENERAL

Tims – Improving MS services in the UK

Report by Siobhan Mac Auley, Clinical specialist Neurophysiotherapist, Belfast City Hospital

Therapists in MS(TiMS) was started by a group of therapy professionals in 2004 and it brings together UK Allied Health Professionals who share a special interest in multiple sclerosis. The TiMS initiative is supported and facilitated by the multiple sclerosis Trust. At present a there is a core group of 25 therapists (physiotherapy, OT and speeech and language therapy) from England, Scotland ,Wales and Northern Ireland. TiMS strength is that it is a multi-professional organisation with the sole aim of supporting allied health professionals (recognised by the HPC) working with those affected by multiple sclerosis. TiMS recognises that each of the professions has their own professional bodies and special interest groups and strives to maintain close links with each of these groups.

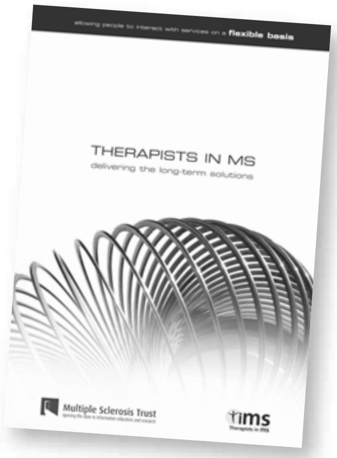
Mission

To improve MS services within the UK, through the promotion and development of the therapist's role in the holistic care and management of people with multiple sclerosis.

Aims

- To be a proactive voice for UK therapists to influence the development of services for people affected by MS.
- To support UK therapists who have an interest in MS through the sharing of expertise and best practice.
- To increase awareness of the therapist's role in MS amongst other health/social care professionals and stakeholders.
- To recognise and raise the profile of the increasing number of therapists working at a specialist level in MS.
- To develop educational initiatives which provide support for UK therapists with an interest in MS.
- To encourage therapists to undertake and publish research in the field of MS.
- To forge links with other professional MS organisations, both nationally and internationally.

There are currently four subgroups: **Publication**, **Research**, **Audit** and **Education**. Each of these goups will evolve as TiMS evolves.



allowing people to interact with services on a flexible basis

THERAPISTS IN MS

delivering the long-term solutions

Multiple Sclerosis Trust

tims Therapists in MS

Publication

In 2006, one of the TiMS projects came to completion, with a launch of a publication – *Therapists in MS - Delivering the Long-term Solutions* – at the House of Commons. The aims of the publication met several of the wider aims of TiMS .The publication highlights the unique and crucial role played by therapists in the effective, holistic management of MS. It relates closely to the recommendations of the NICE Guidelines for the Management of MS and the National Service Framework for Long-term Conditions.

It is available free from the MS Trust (www.mstrust.org.uk) and should be used to raise the profile of therapist interventions in MS amongst political stakeholders, NHS managers, and other health and social care professionals.

Research

TiMS Research Project

Following consultation with other UK therapists, the TiMS research project group have identified a research question for investigation:Does a standardised set of core stability exercises improve balance in people with progressive MS?

Using an innovative approach to research, the TiMS project group will co-ordinate a number of physiotherapists from different UK centres to each undertake a single case study. The project group will provide a standardised protocol for the study and support and guidance to volunteer researchers.The work on this project is ongoing and anyone who has an interest in this is invited to contact the group.

Reference lists for therapists

In partnership with the MS Trust Information Team, the TiMS Research

The second UK Stroke Forum conference

4th-6th December 2007
Harrogate International Centre

Report by Ann Ashburn

Every year an estimated 150,000 people in the UK suffer a stroke making it the third most common cause of death. It is also the single most common cause of severe disability, affecting a staggering 250,000 people in the UK who live with the after effects of stroke. Stroke is often viewed as an older people's condition, with over 65s particularly affected. However the truth is that anyone can suffer a stroke, including children and babies.

As a way of fostering and sharing good clinical practice and research developments, The Stroke Association hosts the UK Stroke Forum, a coalition of over 20 organisations committed to improving stroke care in the UK. Organisations on the UK Stroke Forum are mostly professional stroke associations, special interest groups and patient organisations with representatives from each helping to shape the activities of the coalition, including:

- ACPIN
- British and Irish Orthoptic Society
- British Aphasiology Society
- British Association of Stroke Physicians
- British Psychological Society
- Chest Heart and Stroke Scotland
- Connect
- Different Strokes
- Intercollegiate Stroke Working Party
- National Association of Neurological Occupational Therapists
- National Stroke Nursing Forum
- Northern Ireland Chest Heart and Stroke Association
- Northern Ireland Multidisciplinary Association of Stroke Teams
- Royal College of Speech and Language Therapists
- Scottish Stroke Nurses Forum
- Society for Research in Rehabilitation
- Speakability (Action for Dysphasic Adults)
- Stroke Interest Group, Welsh Branch of the Geriatrics Society
- The Stroke Association
- UK Stroke Research Network
- UK Swallowing Research Group

Last year the coalition was launched with its first annual professional conference, the UK Stroke Forum Conference. The event saw over 1,000 participants attend, making it the biggest multidisciplinary stroke event of the year. This year the event will see educational sessions on a range of topics, including: neuroradiology; urgent management of TIAs; a showcase of leading research funded by UK Stroke Forum charities; the impact of stroke on driving and vision; vascular cognitive impairment; post-stroke depression and personality changes – to name a few.

group are producing reference lists, which are intended to assist other professionals who might be:

- Preparing talks
- Writing papers
- Planning their own research

This list provides key references that demonstrate the efficacy of therapy interventions in MS management – see it at: www.therapistsinms.org.uk/references.jsp

Audit

The audit group are currently looking at how to audit the impact of MS specialist therapists.It is hoped to develop an audit tool that will be applicable to therapy services regardless of the type or number of therapy services involved.

The audit tool will include reference to the quality requirement for services as laid out in the *NSF for Long Term Neurological Conditions* (DoH March 2005) as well as *Therapists Delivering Long Term Solutions* (2006).The tool will be piloted in various sites across the UK before being published on the website.The audit project is currently at its initial stage as we are busy developing the tool. If you have any suggestions or comments we would encourage you to contact us at: therapists@mstrust.org.uk

Education

MS Therapists Education Fund

The MS therapists education fund was set up in 2007 to facilitate therapists to expand their knowledge and skills to best meet the needs of those with MS. The fund has been set by a partnership with some of the pharmaceutical companies, the MS Trust and the MS society. The fund will enable those who are working in a clinical role with people with MS to attend courses, conferences, study days or masterclasses to develop their clinical expertise and expand their skills base. The fund will make grants at the end of February, April, and September.

Educational courses

TiMS has also run a number of successful courses in the past two years for allied health professionals. The next conference will be held in Leeds in November as part of the MS Trust annual conference. The programme contains a broad range of topical issues relating to the clinical management of MS, service development issues and the MS political climate. There is an opportunity to present MS research and the meeting provides plenty of opportunity for networking with other professionals

How can I become involved?

The core group are very aware that lots of therapist would like to be involved,unfortunately it is not practical for all therapists with an interest in MS to be in the core group. However we are always very keen to hear your ideas or answer any questions etc regarding TiMS.

The MS Trust has also set up the Contact Directory which aims to improve communication and sharing of knowledge amongst therapists with an interest in MS. At present there are over 170 therapists involved that have MS expertise. Each therapist listed has their own personal record, with contact details and information about their particular areas of MS expertise. The Directory is password protected and is only accessible to allied health professionals currently registered with the Health Professions Council and members of the UK MS Specialist Nurses Association.

If you would like to add your own details to the directory, please send your contact name and address to: therapists@mstrust.org.uk.

The TiMS website (www.therapistsinms.org.uk) is a very useful resource and is regularly updated to provide information on TiMS progress and acheivements. There are also lots of useful links to other MS related organisations.

Personal viewpoint

I have been part of the core group for the last three years and during that time have seen the TiMS concept mature and develop.It has been extremely interesting to have been involved at this stage and to work with so many recognised specialists in MS. It has also been an insight into the professionalism, efficiency, resources and accountability of a large charitable organisation like the MS trust.

From a professional viewpoint I find the information and the networking through the contact directory invaluable as I work alone in a busy neurological outpatient setting . The publication has also been useful in highlighting the service I should be providing my patients and helps strengthen the case for more staff. It is often difficult to keep up to date with evidence based practice and therefore having the resource of a collective group of indiviuals and the resources of the MS Trust providing reference lists and database searching makes this task less daunting. Working in NI, I often feel geographically isolated from the mainland and therefore as part of TiMS contact network I am well informed of issues and treatments for people with MS in mainland UK. As an active member of both TiMS and ACPIN I feel both organisations complement one another very well and form a strong partnership ensuring the best possible care for the neurological patient.

UK STROKE FORUM

Hosted by The Stroke Association

One of the big highlights of the event is expected to be the launch of the National Stroke Strategy in England which will be presented by Professor Roger Boyle (National Director for Heart Disease and Stroke, Department of Health). It is hoped that this strategy will signal a greater commitment by the Government in England to make stroke a higher priority on the health agenda.

Already some years ahead of England, Scotland will be publishing an update to their National Stroke Strategy in November. It is hoped the Chair of the Scotland National Advisory Committee, Professor Martin Dennis will share with delegates some of the successes and challenges Scotland has faced in implementing its own stroke strategy. Representatives from Wales (Professor Mike Harmer, Deputy Chief Medical Officer for Wales) and Northern Ireland have also been invited to share their plans on how they may begin to support the advancement of stroke care and services in their respective countries.

The 2007 UK Stroke Forum Conference takes place on Tuesday 4th to Thursday 6th December in Harrogate. Please see www.ukstrokeforum.org for an up-to-date programme and registration information. For more information about stroke and The Stroke Association, including funded research and training please see www.stroke.org.uk

Ann Ashburn, Professor of Rehabilitation, represents ACPIN on the Steering Committee and the Scientific Committee. She encourages members to access the website in order to view the draft programme. Thanks go to Daniela Queen for her contributions to this article and to Dr Mary Cramp for her involvement in the reviewing of abstracts.

NEWS GENERAL

The CSP Library and Information Service is here to help you with your information needs

Linda Griffiths CSP Library and Information Services

The CSP Library and Information Service based in the Learning Resource Centre (LRC) of the CSP houses a unique collection of some five and half thousand books, reports, CSP documents, theses and journals covering physiotherapy at all levels and all specialisms. The collection aims to cover all aspects of physiotherapy including clinical practice, professional standards, healthcare and health care management, private practice, continuing professional development, as well as physiotherapy education. We have information on how physiotherapy is practised in Europe and around the world and we have a number of foreign language physiotherapy journals. Details of services offered, our journal holdings and much more is available on the CSP website: www.csp.org.uk/lis

Recent additions to the collection that may be of particular interest to ACPIN members are:

- Hill K, Denisenko S, Miller K, Clements T and Batchelor F (2005) *Clinical outcome measurement in adult neurological physiotherapy.* Melbourne Vic, Australian Physiotherapy Association ISBN 1920948732.
- Petty NJ, Moore AP and Jull G (2004) *Principles of neuromusculoskeletal treatment and time management: a guide for therapists.* Edinburgh, Churchill Livingstone ISBN 0443070628.
- Multiple Sclerosis Society (2006) *A guide to MS for GPs and primary care teams. London Multiple Sclerosis Society.* Available from: www.mssociety.org.uk/for_professionals/primary_care/index.html
- Young L (2003) *Getting the best from neurological services: a guide for people affected by conditions of the brain, spine and nervous system.* Neurological Alliance ISBN 1901893332.

If you would like to see details of other recently acquired publications as they are added to the collection we post the ***Recent Acquisitions*** list bimonthly on the website: www.csp.org.uk/director/newsandevents/newsletters.cfm

Other resources of interest to ACPIN members can be found at:

- Neurological Alliance (2003) *In search of a service : the experiences of people with neurological conditions.* Neurological Alliance. Available from: www.neural.org.uk/pages/publications/service_search.asp
- Advances in Clinical Neuroscience & Rehabilitation www.acnr.co.uk
- *Journal of Neurology Neurosurgery and Psychiatry* www.jnnp.bmj.com/
- The Merck Manuals Online Medical Library for healthcare professionals section on Neurologic Disorders. Available from: www.merck.com/mmpe/index.html

A small team of experienced information professionals work in the Library and Information Services Unit (LIS); they are experts at searching the published literature. If you would like to save time and get an expert search to support your work, see ***Literature Search Services*** on the website. If you would prefer to do your own search we have written a ***Guide to Literature Searching*** that is available in the members' area of the website. In the LRC you have access to a number of databases including Allied and Complementary Medicine (AMED), Cinahl, Embase, HMIC, and SportDiscus. AMED is also available to members via the CSP website. We are always looking for databases relevant to physiotherapists that are freely available on the Internet; these are listed on the ***Bibliographic databases*** page.

Full details of our photocopying services and the forms you need to complete are available on the website please see ***Copying Services***.

For details of all the LIS services go to www.csp.org.uk/lis

We would like to request your help with two projects:

One of the unique features of the CSP Library is its collection of physiotherapy theses and dissertations. We want to increase the collection and would welcome the donation of copies of any Masters, PhD, or MPhil theses or dissertations relevant to physiotherapy. This collection is well used by other members undertaking research or working towards their own postgraduate qualifications. Please send a copy of your thesis/dissertation in paper or electronic format to the Library and Information Services, Bedford Row or email: library@csp.org.uk

Secondly, we are currently working towards making the library catalogue available for searching on the Internet. Once this has been achieved we will be developing our services to members via the Internet. After we have completed installation and internal testing of the new system we want to recruit a number of members prepared to help us test the online catalogue prior to the full launch. This will hopefully take place towards the end of 2007/early 2008. You will need to be registered on the CSP website to help us with this. If you would like to assist please contact Linda Griffiths (griffithsl@csp.org.uk) and we will keep your details on file until ready for testing.

The management of CMT (Charcot-Marie-Tooth) disease

CMT UNITED KINGDOM, the charity that supports people with CMT (PwCMT), is celebrating its 21st anniversary in 2007. Over 25,000 people in the UK have the disease. One in 2,500 is affected, making CMT the most common inherited neurological condition.

In the past PwCMT often fell through the net with regards to physiotherapy referral. Early assessment shortly after diagnosis is important so that the patient can be educated about potential problems and which services to access. It is important to find out what strategies the person may have developed to cope with their condition and to agree any intervention strategies jointly with the patient, say neurological physiotherapists Gita Ramdharry and Liz Dewar. Both have a special interest in the disease and have advised CMT UK about the role of physiotherapy in managing CMT. Due to a lack of evidence about the treatments for CMT, Gita and Liz describe some interventions that are based on their clinical experience.

Background

It is only recently that more has been understood about the genetic causes of CMT (sometimes referred to in the past as Hereditary Motor and Sensory Neuropathy). Twenty one genes are now known to be implicated in the condition. The two most common types of the disease can present differently says Gita. Symptoms of the demyelinating form CMT1 that affects about 80% of PwCMT, include distal weakness, sensory loss and foot deformities especially pes cavus. Symptoms usually develop early on in the first decade of life.

In CMT2, the axonal form that affects 20% of PwCMT, there's often greater distal weakness but less severe pes cavus. Symptoms present in adults usually in the third to fifth decades.

Treatment strategies

Feet With pes cavus, callus formation often occurs on the lateral plantar aspect and metatarsal heads causing pain.

Foot orthoses can help to improve alignment and reduce pain. A randomised controlled trial reported that the use of foot orthoses reduced pain (Burns et al 2005). However, Gita points out that people with pes cavus often have very rigid feet and can't tolerate hard foot orthoses. Less aggressive devices are recommended (Younger , Hansen 2005).

Tightness of the achilles tendon is common. When teaching stretches, it is important to ensure that alignment is optimal if the person has pes cavus.

Foot drop Ankle foot orthoses (AFO) are a common intervention to improve walking although there is no research that has measured this. Two small studies found improvements in standing balance (Hachisuka et al 1997) and oxygen consumption (Bean J et al 2001) when walking.

It may be best initially to try light ankle braces and AFO say Liz and Gita. However, some people who are very weak may need a more rigid device to support their ankles during stance says Gita. It is important to take into account a person's lifestyle when prescribing a device.

Hands There is a tendency to focus on maintaining function in the feet, and so problems in the hands may be overlooked says Liz. People can present with altered sensation, muscle imbalance and unstable joints in the hands. There are various treatment options, for instance a lycra thumb spica when there's a problem with thumb opposition.

Care must be taken not to overstretch the joints with exercise or splints. Working together with an occupational therapist is recommended.

Fatigue One study reported that 67% of PwCMT had severe fatigue (Kalkman et al 2005). It is unclear yet what causes this but there may be a central component to it (Schillings et al, 2007). Fatigue management strategies similar to those used for other chronic conditions can be employed.

General exercise There is evidence that exercise can safely strengthen less affected muscles. Exercise was found to strengthen and improve function in the proximal muscles – the quadriceps and elbow flexors in two studies (Chetlin et al 2004, Lindeman et al 1995).

But there is no evidence yet about how much the weaker distal muscles of the hands and feet should be exercised. There is some concern that too much exercise may affect the weakest muscles. Meanwhile it's important to take a conservative approach until we know for certain that we're not going to weaken them further, says Gita.

Balance Falls can occur because of reduced proprioception and tripping when walking. A study found delayed balance responses in PwCMT (Nardone et al 2006).

Management could involve orthoses to reduce the likelihood of tripping and provide extra sensory feedback. Core stability exercises can help with posture and balance.

Gita Ramdharry is a research physiotherapist at the Institute for Neurology, London. The subject of her PhD which she is currently working on is compensatory strategies in walking for PwCMT. **Liz Dewar** is neuromuscular specialist physiotherapist at the National Hospital for Neurology and Neurosurgery, London.

About CMT United Kingdom

CMT United Kingdom is the national support group for people with CMT, providing advice, information and a personal contact point, for those who feel isolated by their condition, as many people do. We currently have almost 1300 members in the UK and Europe, and mail to another 100 or so interested professionals.

We hold an annual conference in the spring, usually in the Midlands, and although this is primarily a members' event, all are welcome! This is a chance for people with the condition, not only to hear the latest news from the speakers, but to socialise and meet others with similar problems, which is probably the most important part.

We also have produced a number of informative leaflets for people with the condition, and our book, *CMT: A Practical Guide*, is an essential tool in managing the condition. This includes a specific chapter on the benefits of exercise and stretching programmes.

Further information on the condition can be found at www.cmt.org.uk or you can phone us on 0870 7744314.

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NEWS GENERAL

Evaluation of standard physiotherapy care with Duchenne, Becker and Facioscapulohumeral Muscular Dystrophy across the south west UK

Collette Wheeler

Muscular Dystrophies (MD) are genetic, degenerative disorders that are associated with progressive atrophy and muscle weakness. There are numerous types of MD with three of the more common being, Duchenne (DMD), Becker (BMD) and Facioscapulohumeral (FSH), all of which vary in time of onset, rate of degeneration and sex incidence. The degenerative nature of the condition causes severe muscle wasting leading to contractures, deformities, respiratory impairment and other musculoskeletal complications. Therefore, this client group requires ongoing physiotherapy management to control, predict and delay physical and functional impairment. Ongoing, weakly treatment is provided for paediatric patients with the service providing high quality care. However, the transition from paediatric services into adult services is poorly implemented and often non-existent. Adult services struggle to provide ongoing treatment with many adult MD patients having no regular support or access to physiotherapy treatment, despite needing ongoing care and having government policies (NSF) in place to support continuing services.

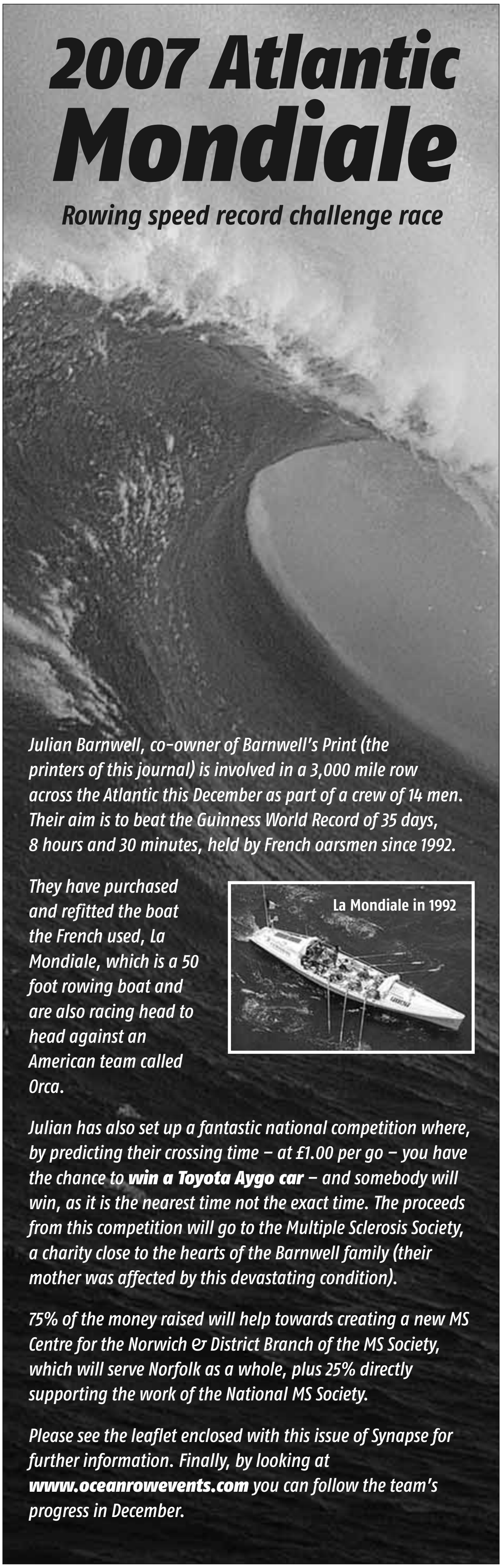
The aim of the study was to identify the current standard of physiotherapy care available to this client group with objectives focusing on: availability of support and provisions, the level of physiotherapy management needed, the availability of transition services and the availability of care pathways for MDs.

100 questionnaires were sent to neurology physiotherapists across South Wales, South England and the Midlands, who were all members of ACPIN.

50 questionnaires were returned. The majority of respondents were experienced physiotherapists with 80% having a clinical grade of Senior I and above. The survey found inconsistencies between services with most MD patients having limited access to provisions with patients being referred via consultants or GPs. Physiotherapy management was tailored around treating secondary sub-problems of muscle weakness with most having blocks of treatment rather than ongoing care or regular reviews. Transition services were poorly implemented with the majority of services having none in place. Care pathways were used for several conditions such as stroke, Parkinson's and post-op care but none were in place for adult MDs.

In conclusion the survey has shown that there are inconsistencies between services with most providing limited support and provision, affecting consistency and standard of adult physiotherapy care for MDs. Inconsistencies are due to poorly implemented transition services and a lack of care pathways, which provide guidance for clinical practice and help to standardise care across the UK.

This abstract was submitted to *Synapse* as the author used the ACPIN data base to assist her studies. The project in its entirety was written for part of the BSC (Hons) in Physiotherapy course at Cardiff University.



2007 Atlantic Mondiale

Rowing speed record challenge race

Julian Barnwell, co-owner of Barnwell's Print (the printers of this journal) is involved in a 3,000 mile row across the Atlantic this December as part of a crew of 14 men. Their aim is to beat the Guinness World Record of 35 days, 8 hours and 30 minutes, held by French oarsmen since 1992.

They have purchased and refitted the boat the French used, La Mondiale, which is a 50 foot rowing boat and are also racing head to head against an American team called Orca.

La Mondiale in 1992

*Julian has also set up a fantastic national competition where, by predicting their crossing time – at £1.00 per go – you have the chance to **win a Toyota Aygo car** – and somebody will win, as it is the nearest time not the exact time. The proceeds from this competition will go to the Multiple Sclerosis Society, a charity close to the hearts of the Barnwell family (their mother was affected by this devastating condition).*

75% of the money raised will help towards creating a new MS Centre for the Norwich & District Branch of the MS Society, which will serve Norfolk as a whole, plus 25% directly supporting the work of the National MS Society.

*Please see the leaflet enclosed with this issue of Synapse for further information. Finally, by looking at **www.oceanrowevents.com** you can follow the team's progress in December.*

SHARING GOOD PRACTICE 1

Introducing a management pack
for Stroke patients in nursing homes

Hannah Dearlove MCSP Senior Physiotherapist

This project was conducted when working in a generic urban community rehabilitation team, as a Senior Physiotherapist. It commenced in January 2006.

THE PROBLEM

In my clinical experience stroke patients discharged to nursing homes tend not to be prioritised and receive little physiotherapy input. This is probably because it is assumed they have limited rehabilitation potential. However, it is these patients that are more complex and at greater risk of secondary complications. Many of them have ongoing, changing and unmet rehabilitation needs and are not receiving the input to maintain function, prevent secondary complications and support carers and relatives.

A literature search using the online databases (CINAHL, EMBASE) was conducted to investigate physiotherapy input to stroke patients in nursing homes and the use of written guidance. There is no current literature on this at present.

In my clinical experience staff in nursing homes would benefit from more training and support to deal with stroke patients. With no management programmes in place and no support how can they be expected to provide the best possible care to such patients?

OBJECTIVE/GOAL

The aim of the project was to set up an individualised management pack for stroke patients in nursing homes and to evaluate the effectiveness of the pack and the effectiveness of physiotherapy intervention.

Over an eight month period all stroke patients in nursing homes referred to the community rehabilitation team were included in the project and seen within two weeks of referral.

During this time, four stroke patients were referred who lived in a nursing home. Three of these were new strokes, one a chronic stroke (five years post event).

The management pack included:

- A brief summary of what a stroke is
- A brief summary of why positioning and posture are important
- An individualised 24 hour positioning programme, with pictures to illustrate positions
- Information on the patients abilities and how to assist them with bed mobility, transfers, mobility etc
- Information on useful contacts in the area
- Any other relevant information eg peg feeds, speech and language problems and how to assist, with input from the relevant therapists

ASSESSMENT, INTERVENTION/MANAGEMENT

A neurological assessment together with a posture and evaluation assessment was completed for all patients. The posture and evaluation assessment was developed by North Surrey PCT. It includes:

- Assessment of weight bearing and alignment in sitting and lying
- A record of time spent in standing, lying and sitting over a 24 hour period
- Postural ability and performance in lying and sitting
- Information on neurological signs and symptoms
- Information on pressure sores
- Visual analogue scale of pain and comfort
- Photographs

The outcome measures used were the Modified Barthel Index and the gross function on the Rivermead Motor Assessment. A painful hemiplegic shoulder assessment was also completed where appropriate.

Feedback forms (see *Appendix 1*) were given to the patients, carers and relatives about the pack they received. These were collected on discharge.

Intervention was provided as indicated by the

Patients	1		2		3		4	
Number of visits	10		19		10		4	
	Initial	Final	Initial	Final	Initial	Final	Initial	Final
Modified Barthel Index Score	0/100	0/100	26/100	34/100	14/100	27/100	6/100	6/100
Rivermead Motor Assessment (gross function)	0/13	0/13	1/13	5/13	1/13	5/13	0/13	0/13
Goals	Set	Achieved	Set	Achieved	Set	Achieved	Set	Achieved

Table 1 **Outcome measures**

neurological physiotherapy assessment. Then a management pack was individualised for each patient. The pack was discussed with the nursing home staff, family and patient and then left in the patient's room for them to refer to.

On discharge from the community rehabilitation team the outcome measures were re-assessed, the feedback forms collected and the carers, patients and relatives informed that they could self refer back to the community rehabilitation team at any time. All patients were put on a four monthly review system.

REVIEW OF OUTCOME MEASURES

In the more able stroke patients (two and three), function improved following input, which was evident in improved outcome measure scores (see *Table 1*). The two more complex patients (one and four) maintained their outcome measure scores. Their posture and positioning had improved, but to my knowledge and following a search of the on-line databases, at the time, no outcome measures exist that demonstrate improvements in posture and positioning.

FEEDBACK FROM CARERS, RELATIVES AND PATIENTS

The feedback from carers, relatives and patients was all positive. They reported the packs were useful, had adequate information, were easy to follow and carer work-load did not increase.

Feedback from relatives on the forms included the following comments:

"In my opinion he has improved, his mobility is much better and he is stronger in his legs when standing with the ETAC turner, he also seems more relaxed and content."

"I appreciated the support as I had felt quite abandoned when he was initially discharged. The pack gave me more confidence when liaising with staff."

THE KEY TO ADHERENCE TO THE MANAGEMENT PROGRAMME

The involvement of the family and the patient was crucial. They were educated on the importance of posture and positioning and were then able to help enforce the programme in the homes by liaising with the carers when they came to visit.

Communication improved between carers and therapist as they both had a better understanding of their respective roles. Carers became more involved and asked questions and advice.

In some cases the ideal programme would not be achievable due to low staffing levels and many high level patients to care for. In these circumstances it was beneficial to sit down with the carers and come up with a programme that was realistic to implement.

IDEAS FOR FUTURE PRACTICE

- If a more able stroke patient is discharged to a nursing home it is vital to perform a home visit with the patient, to demonstrate their abilities, prior to discharge or very soon after. This should help to maintain independence and function.
- On discharge to a nursing home, the more complex stroke patients should be prioritised and then regularly reviewed to enforce appropriate management. This early input should aim to reduce secondary complications and improve patient comfort.
- To improve working relationships and trust between therapists and the staff in the homes, it is preferable to have one key therapist for each home.
- The ideal place to set up this discharge pack would be on the ward prior to discharge to enable a smooth transition from hospital into the community.
- Stroke patents in nursing homes should be reviewed regularly in order to maintain management, support the staff in these homes and meet the patients changing needs.

If management of stroke patients in nursing homes improved, the development of secondary complications should reduce. Therefore re-admission rates to acute hospitals for conditions such as pressure sores and decreased mobility, should also reduce, in-turn reducing service costs. With more support, communication between care staff and community rehabilitation teams should improve. Subsequently, care staff will be better equipped to make appropriate referrals to community teams, thus preventing complications from escalating. This pack could be a more time efficient way of communicating information and co-ordinating care to all those involved in the patients' care, from hospital through to discharge location.

The pack has been further developed and is now being set up prior to discharge and used for all appropriate patients to any discharge location. Feedback from these patients and the community rehabilitation teams is currently being sought. The discharge pack would be beneficial for a variety of patients, to any discharge location, to aid a smooth transition from hospital to the community.

For further information please contact:
Hannah Dearlove at **dearlove_2000@yahoo.com**

Sharing good practice aims to help spread the word amongst like-minded ACPIN members about either innovative practice, service developments or successful audits. As with all articles in *Synapse*, we are totally reliant on our members contributing material that they feel is of interest to others. So if you have something that has been successful in your area, and that you are happy to share, then contact Louise Dunthorne at **louise.dunthorne@tiscali.co.uk**

Feedback form for carers

Please tick the statements you agree with.

1. How useful did you find the information pack?

☐ Very useful
☐ Useful
☐ Not sure
☐ Not very useful

2. Was the information provided?

☐ Too much
☐ Enough / Adequate
☐ Not enough information

3. Was the pack?

☐ Easy to follow
☐ Hard to follow

4. Do you think the advice was followed?

☐ Always
☐ Sometimes
☐ Rarely
☐ Not at all

If rarely or not at all, please give reasons

....

....

5. Do you think patient comfort has?

☐ Improved
☐ Stayed the same
☐ Reduced

6. Did the pack?

☐ Increase your workload
☐ Work load stayed the same
☐ Reduced work load

Please add any comments/suggestions below.

....

....

Appendix 1

This form was also given to clients and relatives to fill out. In these forms the last question was removed.

SHARING GOOD PRACTICE 2

Drop-in group for stroke patients

Restructuring physiotherapy and occupational therapy services as guided by the needs of local stroke patients, without any financial implications.

Annelies Brouwer Senior Neurophysiotherapist Luton and Dunstable Hospital

THE GROUP

Every Wednesday morning, since January 2005, the Occupational Therapist (OT) and Physiotherapist (PT) from the stroke ward in the Luton and Dunstable Hospital run a one hour session for stroke patients who have been discharged from other therapy services. Patients do not get referred to the service but are made aware of its availability by staff on the stroke ward, community therapy staff, staff in the outpatient stroke clinic etc. Patients do not need an appointment but can drop in any or every Wednesday morning at 10.00am as required.

These sessions have been set up for patients who want to continue to improve themselves by working hard at home but feel they need regular advice on how to move forward. The patients come with their own specific, realistic goals like: improve the way they walk; increase a specific functional use of their affected arm; move on to a smaller walking aid; learn how to get up from the floor or in/out of a bath; or to be assessed cognitively for ability to drive a car again. The patients have to be able to work independently or if necessary bring a partner/friend to help them with activities.

Patients can attend as often as they like, and the size of the group has settled around six to eight persons per session. Patients stop attending when they have achieved their goals, feel they are no longer improving, or feel that the service is not suitable for them. This means patients themselves are in control of their discharge from therapy.

Besides the activities that the patients work on, the support they can give each other is really important. They work together with activities, encourage each other, help each other out, and there is a friendly competition in the use of outcome measures that motivates everyone and pushes them to their very best abilities. Outcome measures that are used are a timed walk (over the length of the corridor), grip strength test, and 'driving test'. Because the group is held in the same gym as the one used for the ward stroke patients, the group has become a valuable support and motivator for some of the stroke patients still in hospital.

THE IDEA

The idea for this type of service came from a few years of feedback from local patients. The PT runs neuro-outpatient clinics, where stroke patients can have follow-up physiotherapy. It has always been very difficult to discharge patients from the physiotherapy service because they don't feel ready even though as a PT you no longer see any improvement during an individual session. A lot of stroke patients get referred again and again to different available physiotherapy clinics at the patient's request after having been discharged from another physiotherapy service. The PT also meets a lot of patients coming to the consultant led stroke clinic (in the same building) who expressed a wish to have further physiotherapy. During physiotherapy sessions it sometimes became apparent that patients need occupational therapy input for activities of daily living, but our hospital has no occupational therapy outpatient facilities for stroke patients.

It seemed that facilities already available in the community, like a support group where people can talk to fellow stroke patients and relatives or listen to lectures, did not match the need of the local patients.

Overall the stroke patients seemed to express a great need for OT and PT follow-up that would help them to keep motivated to push themselves to the limit, where they could decide themselves when they had reached their limits.

IMPACTS

1.The biggest impact is in **patient satisfaction**: a survey showed that we are definitely on the right track with a 100% satisfaction rate of the attendants (survey done after six months).

2. Another impact is the **reduction of time spent in the neuro-outpatient clinic** by the physiotherapist. Over a period of five months referrals to the physiotherapy outpatient clinic are down by 17% compared to the previous year, while follow-up attendances are down by 53% (see *Table 1* below).

	Jan–May 2004	Jan–May 2005
Individual attendances	296	140
Group attendances	0	143
Total	**296**	**287**

Table 1

So although the total number of attendances has hardly changed, the physiotherapist's time in the outpatient clinic has greatly reduced, freeing her up to work more on the stroke ward with acute patients (individual attendances usually last a half hour. 140 attendances would add up to 70 hours work. The same number of attendances in the group sessions were spread over about 20 hours over a period of five months).

3. Patients now have access to an OT that was not available before the start of the group, with effective use of time of the OT.

4. We have **opened up opportunities for ourselves as staff** to get involved in audit and research in the area of middle/longterm follow-up of stroke patients. So far the OT has completed an audit on the use of the cognitive driving screening test, and the PT has collaborated with the hand therapist to use a hand device together with electrical muscle stimulation to observe the impact on hand function.

REVIEWS ARTICLES BOOKS COURSES

Reviews of research articles, books and courses 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.

BOOK

(my) Dying is Fun

A comedy of disabled misadventures

Christopher Day (2007) Trafford Publishing, Oxford

Reviewed by **Jakko Brouwers**
Superintendent Physiotherapist, Rookwood Hospital, Cardiff, Wales

Christopher Day is a Professor in Architecture and has successfully published many books on that subject. In *(my) Dying is Fun* he reflects on his life, and life and death in general, after he is diagnosed with MND. He finds that most people will die at some stage and that he himself could have died several times in the past by accident or misfortune.

He decides that life and death are on the same parallel and dying is a part of living. Believing that one should try to look at the funny side of life he aims to look at the funny side of his dying and teaches how to live life to the full.

After an introduction, the book initially reads as a biography where Christopher goes back to his childhood, youth and adult life before his illness. In the same style the reader is introduced to the initial failing functions due to progress of his MND.

Later, the book slightly changes in style to describe situations in which he is challenged in seemingly normal situations with daily living tasks. These descriptions take the shape of short sketches with very humorous reflections on details of the situation encountered. Through the sketches Christopher Day describes the way in which he is confronted with a body that is gradually unable to perform 'normal tasks' and he talks about his adaptations to his life as the disease progresses. Along the way he reflects on the assistive devices and services which he encounters. Although these have been designed to help and promote his independence they do not always make life more comfortable, however, they do lead to funny situations on reflection. He has a go at trying some specialist adaptations and inventing some of his own adaptations to his life with a disability often with hilarious outcome.

Throughout the book Christopher Day is often philosophic about life and his own situation, ie when reflecting on a particular carer's tendency to leave jobs unfinished:

"It is only completion that makes a job worth starting ... Is living without dying really worth the hassle?"

Towards the end of the book he philosophises

" Things going wrong is what life is about. This makes it exciting, stimulating and fun".

Through this book, Christopher Day provides valuable insight to professionals and patients into the perceptions of a patient, his life and adaptations to life due to progressive disability as a result from neurological disease.

After reading this book, you will start to look at disability – and dying, and even living – through new eyes.

COURSE

Bobath @ 50

Reviewed by **Janice Champion**
Regional Representative for Kent ACPIN

This conference was held in London at the Institute of Child Health on the 6th and 7th September 2007 to celebrate the 50th anniversary of the Bobath Centre. This international gathering was attended by nearly 200 people from over twenty countries, many of them tutors/instructors from the adult and paediatric world.

The venue was ideal with adequate space for the trade stands to display their products and the posters to be clearly visible as you entered the lecture hall.

The conference was opened by Christine Barber as Director of Therapy Services at the Bobath Centre and HRH The Duchess of Gloucester GCVO who is patron of the Bobath Centre.

The inaugural lecture was given by Dr. Margaret Mayston, entitled 'Bobath @ 50 – midlife crisis or life-changing moment?' which gave us all some thought provoking material. It was fascinating to see video footage of the Dr and Mrs Bobath explaining their concept.

The speakers also had an international 'flavour' – there was a case presentation on the use of botulinum toxin in a toddler with cerebral palsy from Belgium, a study of developing postural control in infants from the Netherlands and a presentation from an Italian professor on how standing is controlled by feedback and feed-forward mechanisms – and this was just day one! Day two included a lecture on the use of Functional Near Infra-Red Spectroscopy (NIRS) for guiding rehabilitation from the Medical Director of the Morinomiya Hospital in Japan, a study on how intensive Bobath – based therapy helped improve the lives of cerebral palsy children in rural South Africa and 'Motor Skill Learning' from a Professor from America.

This two day meeting presented both adult and paediatric work and successfully used a mix of lectures and case presentations to present stimulating new evidence on human movement, how it is affected by pathology and how the Bobath Concept can improve the quality of life in children and adults.

ACPIN NATIONAL CONFERENCE & AGM

CALL FOR POSTERS

Do you have a piece of work relating to the rehabilitation of acquired brain injury or the management of spasticity that you would like to share with your colleagues? A small pilot study or audit perhaps? Are you a student or recently graduated physiotherapist who would like to share the results of your dissertation?

Then this is the forum for you.

ACQUIRED BRAIN INJURY

Competency with the complex

FRIDAY 14 TO SATURDAY 15 MARCH 2008
THE HILTON HOTEL NORTHAMPTON

You will have the opportunity to speak for five minutes about your project and then answer questions from the floor in a special session created to support and platform new work.

It really is not as daunting as you think and may help you achieve your KSF requirements! Support can be offered in the development of your idea although ACPIN cannot print the posters themselves.

Please contact:
Julia Williamson
(Hon research officer) via
Julia.Williamson@nuth.nhs.uk
or
0191 233 6161 x 22863
for additional information.

Deadline for expressions of interest;
11 January 2008

ACPIN

THE ASSOCIATION OF CHARTERED PHYSIOTHERAPISTS
INTERESTED IN NEUROLOGY

REGIONAL REPORTS

East Anglia

Nic Hills

East Anglia ACPIN has seen a few changes recently with our chair, Louise Kenworthy, stepping down after several years of dedicated service. The committee would like to thank her for commitment and hard work. We would also like to welcome her successor, Pippa DeLaBilliere, and wish her good luck in her new role! In addition, we have also said goodbye and thank you to Sesa Ishaya, our former regional representative.

We have had a quiet few months, but our AGM in May was hosted at Addenbrookes Hospital, and included a lecture from a nurse specialist on GBS. There are a number of courses in the pipeline including;

- an update on orthotics
- spasticity course
- study afternoons to examine best practice for common neurological conditions.

Dates should be arranged following the next committee meeting.

We are still keen to establish a network of ACPIN committee members across the region, and would be really pleased to hear from anyone interested in joining us. The more people we have to liaise with, the more relevant we can make our programme. We look forward to hearing from you!

Kent

Janice Champion

We have had another good year with membership numbers staying high for Kent and therefore our committee has been strongly supported led by Cathy Kelly-Jones, our chairperson.

Our 2007 programme has continued with a BBTA Ataxia Workshop in October led by Ann Holland, Bobath Tutor. This was an exciting day consisting of a lecture, patient demonstration and the participants having the opportunity to assess and treat a patient under Ann's guidance. Everyone had a great day especially the patients.

Our plans for 2008 include a Head Injury Study Day and the AGM in March will be a study afternoon on muscle disorders and will probably include tea/supper to entice members to attend the AGM!

We are hoping to run a Vestibular Rehabilitation Study Day in conjunction with our neighbouring Sussex region in the Spring.

Any ideas from members for future courses are always welcome.

Manchester

Helen Dawson

Here at Manchester ACPIN we have been finding our feet again after changes in our committee this year. A very belated thank you to Jane Leister for all her hard work as she resigned from the position of chair person at the beginning of the year. Jane has passed the baton on to Julie Rigby as our new chair. A belated welcome to Julie and also to our newer committee members.

Thank you to all our members who have continued to support Manchester ACPIN, and especially to everyone who fed back to our members' questionnaire to enable us to shape our programme to suit you.

Our bi-monthly lecture format continues to be successful. Special thanks to all of our dynamic speakers from this year who have kept us on our toes!

Remaining 2007 programme

- November 21st *Medical update in stroke* Withington Hospital with consultant Ed Gamble

Our **programme for 2008** is shaping up and looks like this!

- January *Vestibular approach to balance and gait*
- March *AGM and patient demo*
- May *Gym ball session*
- July *MS-focus on cognition and fatigue*
- September *Splinting day course*
- November *Open forum for question/ discussion with wine and cheese*

We are keen to make the Committee accessible and so have set up a central email address where you can send any comments, queries or thoughts: Acpinmanchester@yahoo.co.uk

Thanks for all your support this year and we hope to see you next year!

Merseyside

Jo Jones

Firstly, sincere apologies for the absence of a report in more recent editions of *Synapse*, I'm back on track now and ready to update the world on the inner workings of the Merseyside region!

Membership stands at a relatively healthy 46 and whilst this has remained fairly static over the last few months, I am pleased to say we have managed to swell our committee numbers and not before time! We are pleased to welcome fledgling committee members – Lucy West, Katie Game and Hayley Goulding and are extremely hopeful of persuading an 'old friend', Jo Howarth, to return to the fold now that she has more time on her hands! However, with good news often comes bad, and we were very sorry to receive the resignation of our longest serving committee member, Lyndsay Atkinson as she takes a career break to explore pastures new. On behalf of the committee and indeed the membership, I would like to thank Lyndsay for her tireless efforts as a committee member and for keeping us solvent as treasurer! We wish her all the very best for the future.

In terms of our 2007 lecture programme, we hope to end the year on a high by hosting a two day ataxia course with Pam Mulholland on November 16th/17th. Planning for the 2008 programme is well under way with potential topics including outpatient techniques for upper limb, hand study day, movement science, medicolegal issues and adult CP. More concrete information will be provided re dates etc once speakers have been confirmed – keep a close eye on the Merseyside section of the ACPIN website! As always, if any members have suggestions for course/lecture topics, please contact the committee and we will endeavour to take these forward for you.

Northern

Pam Thirlwell

So far this year we have had a very successful ataxia course with Lynne Fletcher – this was held at Wansbeck Hospital in the north of our region.

The course was very well received and thanks to all the staff there and the ACPIN committee members who organised the course.

We held our AGM during this course too – a captive audience with a free lunch gives more chance of achieving a quorum!

Two of our longer serving committee members retired so on behalf of Northern ACPIN I would like to thank Heather Hunter (retiring as chair) and Christina Whittenbury (retiring as treasurer) for all their hard work on the committee over the past years and wish them well with their future careers. Our new chair is Emma Smart and new treasurer in Catherine Birkett so thanks to them for taking on these roles. We also recruited two new committee members Heidi Miller and Rosie Sims.

We also hosted a brain gym study day at the Freeman Hospital – unfortunately this was not as good as hoped and feedback on the whole was very poor. Due to this very poor response we have contacted the Brain Gym Organisation and also offered discount on the next ACPIN course to people who attended the course.

At time of going to press no further courses have been definitely arranged for this year but plans for next years programme are already underway and we plan to send out flyers with details of upcoming courses to our membership once details have been finalised.

If anyone has an idea for a course or would like to join the committee please contact any of the committee members.

Northern Ireland

Joanne Wrigglesworth

Firstly, a big thank you to our members for an excellent year, with attendance better than ever. During the summer break, your committee continued to work tirelessly on your behalf (!) putting together a superb programme for 2007/08. By the time this goes to press, we will have enjoyed workshops on neurological assessment, chronic pain and movement disorders.

Paul Johnston from BBTA has joined us in Northern Ireland to provide the 'Introduction to normal movement' weekends, providing staff from around the region with the opportunity to develop their skills and interest in neurology.

Our programme continues after the Christmas break, with a visit to the gait analysis laboratory in Musgrave Park, followed by lectures on botulinum toxin and Parkinson's disease. In April, we will be 'getting on the ball' with a gymball workshop and our final extravaganza in May is yet to be confirmed, but will hopefully involve the adapted driving centre!

Following the success of the certificate of attendance from NI ACPIN last year, this will be continued in 2007/08, allowing people to update their CPD folders!

Finally, your committee are looking forward to another successful and fun year of ACPIN activity and hoping to share it with as many of our Northern Ireland colleagues as possible!

Oxford

Fiona Cuthbertson

We have continued our busy programme of evening lectures, and due to the popularity of our half day shoulder course in February (tutors Charlie Winward and Jane Moser) we were able to run it again successfully in August. We even managed to go punting the day before the floods came! Our 2007 evening lectures have been truly multidisciplinary and we have enjoyed some interesting talks on a range of topics: the importance of posture in speech production, cognition and perception, the importance of early medical assessment in minor stroke and TIA, and at our AGM in March we heard a most inspirational account by patient Kate O'Leary of her experiences during the filming of the BBC series *Beyond Boundaries*.

Our AGM also saw some changes to the committee – Nicola James stepped down from the role of secretary and is replaced by Bev Reetham. We thank Nicola for all of her hard work as secretary and welcome her continued support as a committee member along with new committee member Claire Harris.

Forthcoming programme

- November 13th 2007 *Thrombolysis in the treatment of stroke* Dr James Kennedy OCE
- January/February 2008 study day with Laura Bochkoltz *Incomplete spinal cord injury* date and venue TBC
- March 18th 2008 AGM and talk by Adrian Capp on *The Physiotherapy management of Acute Head Injury* High Wycombe
- June 14th 2008 Study day on *Pain* with Lorimer Moseley, Oxford
- September 5th–6th 2008 two day practical course with Pam Mulholland (Bobath Tutor), Oxford subject TBC

Further evening lectures, study days and a patient practical are planned. We advertise by flyer, on interactive CSP and in *Frontline* closer to the dates so please check regularly.

If anyone has any suggestions for speakers or courses or would like to host an event at their hospital, please get in touch with any member of the committee.

Scotland

Lindsay Masterton

ACPIN Scotland would like to say a big thank you to Sarah Davidson, our retiring chairperson for all her hard work and enthusiasm over the many (!) years. We wish her well for the future.

Some of our recent events have included an evening lecture on emotional freedom technique and a two day MRP on the lower limb by Karl Schurr both of which were very successful and inspiring. Some committee members attended an ataxia focus group meeting held in Edinburgh – more details of which will be circulated later in the newsletter.

Forthcoming events include courses led by Debbie Strang and Mark Smith. Further details will be advertised locally and through our mailing list.

Our committee membership remains healthy but we always welcome new members. Finally, thank you to all our Scottish members for their ongoing support and please keep the ideas coming for future topics.

REGIONAL REPORTS

South Trent

Tina Hutchinson

Firstly, we have had a few changes on the committee. Marika Stevens has resigned as chair to move onto pastures new. We would all like to thank Marika for her hard work and dedication and wish her all the best in the future. Cilla White has very kindly agreed to take on this role. Also, I have resigned as regional representative as I am off on extended honeymoon for six months! I would like to say thanks to all ACPIN members for your support over the last two years and good luck in the future. Hannah Milne has also kindly agreed to take on the role of membership secretary so if anyone is interested in joining the committee please contact Hannah at Hannah.Milne@Erewash-PCT.nhs.uk

We have held two very successful evening lectures on MS and pilates which were both well attended. There is a 'Get on the ball' course being held on the 8th and 9th September and Nigel Lawes is delivering a study day on the 10th November at Ilkeston which is on the neurophysiology of the cerebellum.

We have a provisional plan for 2008 which includes an evening lecture on vestibular rehabilitation (no date yet) and one on constraint induced therapy (plan April 2008). We are also hoping to run a course on the sacro-iliac joint.

Thank you again to all our members for your continued support – please contact us if you are interested in joining the committee!

South West

Kate Moss

South West ACPIN have continued to hold regular evening lectures, courses and committee meetings throughout the year. Our chair, Peggoty Talbot and treasurer, Sarah Alexander finished in June 2007 due to maternity leave. Many thanks on behalf of South West ACPIN committee and wider membership to Peggoty and Sarah for all of their hard work and good luck for the future. Committee numbers are therefore dwindling and we are searching for new members to be part of the team in order that we can continue with an active course programme. Colin Domaille has taken over as temporary chair until February 2008 when, at our next AGM, we hope to elect a new chair.

Courses have included goal setting in rehabilitation evening lecture by Rhoda Allison, a Janice Champion gym ball course and feedback from the ACPIN National and European stroke conference by Debbie Neal, consultant therapist. Future courses planned for the forthcoming months are; the South West ACPIN AGM on February 23rd with Martine Nadler, a Paulette van Vliet spasticity course and, later in 2008, a Nigel Lawes neurophysiology course. All courses are advertised on our website www.southwestacpin.net

Surrey and Borders

Kate Moffatt

We have seen a number of changes over the past six months due to changes of role, resignations and maternity leave. Alison Burns has stepped down from chair after a long haul and is replaced by Anna Dunkerley. Luckily for us Alison remains on the committee and we thank her for her continuing support! We would also like to give belated congratulations to Ruth Turk on the birth of Bethany Kate! Despite losing members, we still have an enthusiastic committee, but we would also welcome any newcomers!

Recent evening lectures have been well attended. In April we had a talk from the local Phyllis Tuckwell Hospice in Farnham. In June, a topical lecture by Professor L McClellan, 'ABI Intervention inpatient versus community' created further debate and discussion on the current service availability for ABI's both at a regional and national level. Catherine Best gave an informative talk on 'MSA' from the Sarah Matherson Trust which was very well received.

Much of our efforts have been in organising and co-ordinating the three 'Introduction to Bobath' modules that were run in September and October. The modules were extremely popular and overly subscribed. Thank you to Nicky Eglinton, the chief organiser!

We are planning our AGM in March with a study day on *Management of the neurological foot* – lecturers TBC

Robotics, *Fatigue management*, *Discharge from physiotherapy* (Sarah Domain, Research Fellow, Southampton) and *Constraint therapy* are evening lectures currently being organised.

All courses will be advertised on fliers sent to local departments and in both *Frontline* and the ICSP website so keep a look out!

Please do not hesitate to contact me on 01483 782352 or email ksmoff@hotmail.com, if you have any queries or ideas for future lectures, or offers of help.

Sussex

Clare Hall

The membership is at a healthy level in Sussex although more members are always welcome. Do get in touch if you'd like to join the committee; we usually meet about four times a year to plan the programme and discuss any other relevant items.

Sussex ACPIN aims to provide at least four events per year in different venues.

Remaining 2007/8 programme

- November 2007 *Feedback from the 2007 ACPIN Conference*, *Balance and Parkinson's Disease* evening lecture
- January 2008 *Interpretation of MRI/CT Scans* evening lecture details TBC

We are always seeking further ideas for topics, speakers and venues. Have a think and let us know about your wishes for next year's programme: contact details of all the committee are on the website.

Wessex

Mary Vincent

Thank you to all the committee for organising a number of successful study days and evening lectures throughout 2007. We have managed to hold an event every month (except during the summer break in August) which is a great achievement. Thank you also to all members who have attended and supported these events. Wessex region are now providing certificates for proof of attendance which can boost your CPD portfolios and we encourage you to complete the reflective practice section in order to put new evidence into daily practise.

At present Jenny Baker remains chair, Marjon van Wees remains secretary, Heather Ross remains treasurer and I remain regional representative for the region. Congratulations to Heather who recently got married – we wish her all the best in married life. All the committee are due to meet in December to plan events for 2008 so please contact us with any ideas/topics you might like covered.

Our next forthcoming event in November is a talk by Lesley Faulkes, SAH Specialist Nurse so look out for the adverts and we look forward to seeing members there.

West Midlands

Fiona Wallace

On behalf of the region I wish to thank Linzie Bassett who has resigned as chair of the West Midlands Committee, for her outstanding dedication to ACPIN. We are all very sad to see her go, but are comforted by the fact that the post has been left in the safe hands of Caroline Graham. I would also like to congratulate Kate Duffield and Marie Adams who have both had babies in the last year and welcome our new members who are settling into the committee.

2007 courses began with the AGM which took place on the April 25th prior to an interesting and informative evening lecture on 'Non–traumatic spinal injuries' presented by Dr Asar at Mosley Hall Hospital. This was followed by the previously postponed 'Clinical outcome measures in neurology' workshop on July 7th, led by Helen Linfield, which was definitely worth the wait.

On September 19th Dr Rickard's presented an evening lecture on conversion disorders at Birmingham University. This proved to be a very popular topic and was extremely well attended.

Future events include a two day hydrotherapy course on 2nd and 3rd November led by Alison Skinner at Good Hope Hospital, and to complete the programme on 11th December Carron Sintler will present an evening lecture on the 'Co-ordination of Stroke patient care'.

Unfortunately we have been unable to include the cerebral palsy in adult life study day and the PNF two day event in the 2007 course programme, although it is intended to include them within the 2008 course programme which is in its planning stages.

I would like to thank the committee for all their hard work and West Midlands ACPIN members for their continued support.

Yorkshire

Jill Fisher

The committee was sorry to loose Anne-Marie Knowles from the committee in July because of family commitments. We are grateful for all she has done for Yorkshire ACPIN as chair and in other roles. We are very pleased Heather Dunbar has agreed to become our new chair. At our AGM in May we welcomed Gemma Lord, Debbie Nisbet and Emma Greenfield to the committee.

Our most well attended evening lecture ever was held at the AGM in May – I am safe in saying it was not the AGM that was the draw! Mary Lynch-Ellerington spoke on incomplete spinal injuries. Other lectures and study days this year have included a study day in April – 'Introduction to clinical decision making in neurology' with tutor Liz Mckay and in July a gait study day led by Debbie Strang and in October myself speaking on 'Managing patients with severe neuro-disability'.

Future events include Denise Ross will talk about 'Stroke assessments' on November 6th. In December Debbie Neil a consultant physiotherapist, will talk about 'Enabling self-management'. On February 24th Mary Lynch-Ellerington will lead a study day on 'Functional recovery of the hand'. Other lectures planned for 2008 include Dr Duffy talking on dystonia. Sophie Makeover giving a talk on robotic arm research and Dr Amanda Stroud on 'Practical strategies for behaviour management'.

APPLICATION FORM

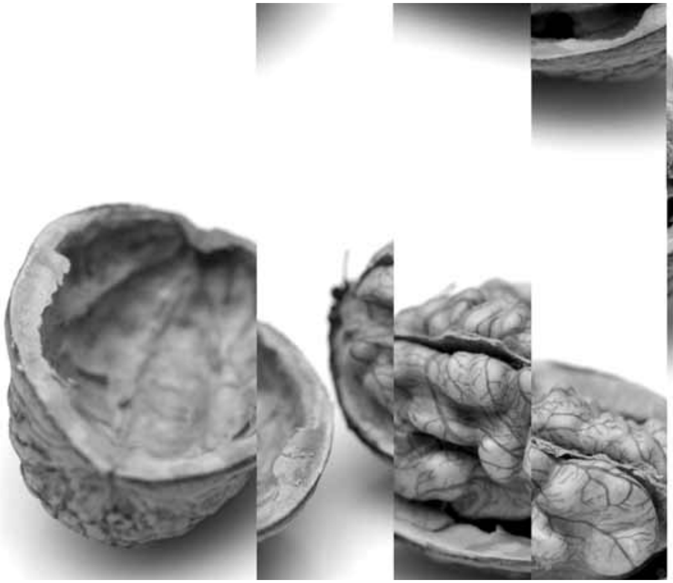
ACPIN NATIONAL CONFERENCE & AGM

ACQUIRED BRAIN INJURY

Competency with the complex

FRIDAY 14 TO SATURDAY 15 MARCH 2008

THE HILTON HOTEL NORTHAMPTON



All sections must be completed in BLOCK CAPITALS. Payment secures place on a first come, first served basis. Please make cheques payable to ACPIN. * Delete as applicable

DELEGATE DETAILS

TITLE* MISS / MS / MRS / MR / DR

SURNAME

FORENAME(S)

ACPIN NO

ADDRESS

POSTCODE

TEL (DAY)

EMAIL

CONFERENCE FEES (please tick as applicable)

FULL DELEGATE rate includes attendance at all lectures on Friday and Saturday, full use of hotel leisure facilities, Gala Dinner on Friday night, and accommodation on Friday night. These prices are based on two people sharing a twin room. There is an additional charge for single occupancy as there is very limited single occupancy at the Hilton Hotel. The **DAY DELEGATE** rate includes attendance at all lectures on Friday ***or*** Saturday but does ***not*** include dinner on the Friday night or use of the hotel's leisure facilities.

FULL DELEGATE

Shared room	ACPIN member	**£220.00**	☐	non-ACPIN	£280.00	☐
Single occupancy	ACPIN member	**£245.00**	☐	non-ACPIN	£285.00	☐

DAY DELEGATE

Friday	ACPIN member	**£95.00**	☐	non-ACPIN	£130.00	☐
Saturday	ACPIN member	**£95.00**	☐	non-ACPIN	£130.00	☐

If you wish to share your room with a specific delegate you must ***send your application forms together***. ACPIN cannot change bookings for accommodation once the application form is received.

Delegate to share room with:

SPECIAL REQUIREMENTS

Do you have any special dietary/access requirements? **YES** ☐ **NO** ☐

If **YES** please specify ▼

CLOSING DATE

28th February 2008

NOTES ABOUT BOOKING

Delegates are advised to keep a copy of their registration form for their own records

Only one delegate to be booked on this form. Please photocopy if necessary.

Refunds will not be given for cancellations made after 22nd February 2008, and any cancellations before this time will incur a £15 administration charge.

On receipt of your application, a confirmation pack will be sent out.

Places are limited.

Please return your application form with payment to:

Ros Cox MCSP
1 Pascoe Close
Ashley Cross
Poole
Dorset
BH14 0NT

THE ASSOCIATION OF CHARTERED PHYSIOTHERAPISTS INTERESTED IN NEUROLOGY

GUIDELINES FOR AUTHORS

***Synapse* is the official newsletter of ACPIN. It aims to provide a channel of communication between ACPIN members, to provide a forum to inform, instruct and debate regarding all aspects of neurological physiotherapy. A number of types of articles have been identified which fulfil these aims. The types of article are:**

Case Reports

Synapse is pleased to accept case reports from practitioners, that provide information which will encourage other practitioners to improve or make changes in their own practice or clinical reasoning of how to influence a change or plan a treatment for that condition. The maximum length is 2000 words including references. An outline is given as follows:

Introduction

State the purpose of the report and why the case is worth reading about to include in short sentences:

- The patient and the condition.
- How the case came to your attention.
- What is new or different about it.
- The main features worth reporting.

The patient

Give a concise description of the patient and condition that shows the key physiotherapeutic, biomedical and psychosocial features. The patient's perspective on the problem and priorities for treatment are important. Give the patient a name in the interests of humanity, but not the real name. Do not include any other identifying details or photographs without the patient's permission.

Intervention

Describe what you did, how the patient progressed, and the outcome. This section should cover:

- Aims of physiotherapy.
- Treatment, problems and progress.
- Outcomes, including any changes in impairment and disability.
- Justification of your choice of treatment; clinical reasoning
- The patient's level of satisfaction and the outcome and the impact on quality of life.

Method

This should clarify what intervention took place and what measurements were taken. It should include:

- Description(s) of outcome measures used and reference
- Interventions carried out (where, when, by whom if relevant)

Implications for practice

Discuss the knowledge gained, with reference to published research findings and/or evidence about clinical effectiveness. For example:

- Outcome for the patient.
- Drawbacks.
- Insights for treatment of similar patients.
- Potential for application to other conditions.

Summary

List the main lessons to be drawn from this example.

References

These should be in the Harvard style (see section on 'Measurements' below).

Further guidelines for writing case reports were published in the Spring 2001 issue of *Synapse*, page 19.

Abstracts of thesis and dissertations

Abstracts from research projects, including those from undergraduate or postgraduate degrees, audits or presentations. They should be up to 500 words and where possible the conventional format: introduction, purpose, method, results, discussion, conclusion.

Audit Report

A report which contains examination of the method, results, analysis, conclusions and service developments of audit relating to neurology and physiotherapy, using any method or design. This could also include a Service Development Quality Assurance Report of changes in service delivery aimed at improving quality. These should be up to 2000 words including references.

Review of Articles

A critical appraisal of primary source material on a specific topic related to neurology. Download the ACPIN information sheet Reviewing research articles for further guidance from the ACPIN website.

Product News

A short appraisal of up to 500 words, used to bring new or redesigned equipment to the notice of the readers. ACPIN and *Synapse* take no responsibility for these assessments, it is not an endorsement of the equipment. If an official trial has been carried out this should be presented as a technical evaluation. This may include a description of a mechanical or technical device used in assessment, treatment, management or education to include specifications and summary evaluation.

Review of books, software and videos

Short reviews of up to 500 words to include details of availability, price and source for purchasing.

Letters to Synapse

These can be about any issue pertinent to neurological physiotherapy or ACPIN. They may relate to material published in the previous issue(s) of *Synapse*.

PREPARATION OF EDITORIAL MATERIAL

Copy 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.

Hard copies should be as close to journal style as possible, on one side of A4 paper with at least a 25mm margin all around, consecutively numbered.

The first page should give:

- The title of the article
- The names of the author(s)
- A complete name and address for correspondence
- Professional and academic qualifications for all authors, and their current positions
- For research papers, a brief note about each author which indicates their contribution and a summary of any funds supporting the work

All articles

- The text should be well organised and written in simple, clear correct English. The positions of tables, charts or photographs should be appropriately titled and numbered consecutively in the text.
- All abbreviations must be explained.
- Any photographs or line drawings should be in sharp focus with good contrast for best reproduction.
- All charts should be in black and white only and captions should reflect this.
- References should be listed alphabetically, in the Harvard style with punctuation as follows: Bloggs A, Collins B (1998) The use of bandages in treating head injuries Physiotherapy 67,3 pp12–13.
- In the text, the reference should be quoted as the author(s) names followed by the date: Bloggs A (1994)
- Acknowledgements are listed at the end.

Measurements

As the International System of Units (SI) is not yet universal, both metric and imperial units are used in the United Kingdom in different circumstances. Depending on which units were used for the original calculations, data may be reported in imperial units followed by the SI equivalent in parentheses, or SI measurements followed by imperial measurements in parentheses. If the article mentions an outcome measure, appropriate information about it should be included, describing measurement properties and where it may be obtained.

Permissions and ethical certification

Protection of subjects: 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. The use of names for patients is encouraged in case studies for clarity and humanity, but they should not be their real names.

Submission of articles

The disk and two hard copies 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* co-ordinator:
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Note: all material submitted to the administrator is normally acknowledged within two weeks of receipt.

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