SPRING 2003

Syn´apse

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

Linzie Bassett MCSP SRP
ACPIN Chairperson

Welcome to the Spring edition of *Synapse*. We are in a period of uncertainty with the threatened war with Iraq and closer to home on a professional level, the issue of *Agenda for Change*. To quote the CSP:

> 'NHS staff are facing the biggest shake-up in pay, grading and conditions since the birth of the NHS over 50 years ago'.

The Government's *Agenda for Change* (AFC) proposes a radical re-think of the way health service staff, including CSP members, are rewarded for their work. The student allowance being one of the most controversial components of the plan. With the Government's push to increase student places even further, (*Therapy Weekly*), by a rumoured 59%, this heightens the demand for clinical educators. By the time this edition has gone to press we should know the outcome of both dramatic events.

The Executive Committee is also undergoing a complete re-organisation due to the resignation of several longstanding committee members: Anthea Dendy (Vice Chair), Rowena Wright (Hon Membership Secretary), Ros Wade (*Synapse* Co-ordinator) and Rosie Hitchcock (Executive Committee Member). We thank them for all their time, energy and commitment to ACPIN over the last few years and wish them well in future ventures. Louise Gatehouse (Minute Secretary) left the Executive Committee in January.

The four vacant posts were advertised in *Frontline* and we had six applications which was a very positive response. The structure of the committee and who's who is featured later in the journal.

Emma Forbes (Scotland), Naomi Jones (Sussex) and Jan Matthews (Northampton) have resigned as Regional Representatives, we thank them and wish them well.

In view of all these changes it has been proposed that I remain Chair for one further year to work alongside the new Vice Chair. The Executive Committee will formally vote me back on to the committee at our meeting on 14th May 2003.

In light of ACPIN's current committee changes, it is a priority that our existing constitution is updated. The Executive Committee is in the process of drafting a new constitution, this will be available for consultation by all members via the website and *Synapse* later this year. We would value your comments. The new constitution will be formally voted in at next year's AGM.

Professor Ray Tallis, our President, has been in post for one year, he has been an invaluable source of information and support. He has kindly accepted the invitation to lecture on ethics at Congress and to Chair the fringe meeting.

Membership continues to flourish, comparing the total membership from 1998 (976 members) to 2002 (1370) – an increase in membership of 400. To date we have 1053 members for 2003, 200 of these being new members. I think this indicates how successful ACPIN is as a clinical interest group and that it is truly meeting the demands/needs of all our members.

Synapse has maintained its reputation and provides the vital communication link between members and the committee. For its development to continue it relies on you as members to submit material!

By the time you receive this copy of *Synapse* our fourth residential conference will have taken place. The title has proved to be extremely popular with over 200 delegates attending the two day conference, we had a further 50 delegates on a waiting list. A full report of the events is included in this edition.

We are delighted to be hosting a programme entitled 'Progressive Disorders' at this year's CSP Congress, taking place at the ICC Birmingham from the 17th-19th October 2003. A fringe meeting and ACPIN supper are being planned following feedback from last year's programme. The final programme is included in this edition.

ACPIN and Elan Pharmaceuticals combined forces recently to host study days on the 'Management of Spasticity'. The days were co-ordinated at regional level and seem to have been well attended.

The applicant who applied for the research bursary was awarded the money to assist in their research. Invitations for this year's bursary are now requested, see report by Mary Cramp (Honorary Research Officer).

Following the plea by the CSP for research questions for the Research Priorities Project – Neurology Panel, a full pack has been published (whole pack £50, individual specialities £10) – definitely worth investing in. See letters page re: request from Gabrielle Ranking, Professional Adviser at CSP.

On a serious note, Ralph Hammond contacted ACPIN in January 2003 concerning the lack of support by ACPIN members in the publication of *NICE Guidelines for Head Injury* and particularly MS. There needs to be wide consultation of the draft guidelines by all grades of physiotherapists to ensure that every avenue has been explored, and all opinions have been canvassed before the final document is published later this year. This is our opportunity to demand improved services and resources for our patients. I am keen to hear from members who are interested in reviewing future documents on behalf of ACPIN and the CSP. There has been concern that the CSP Standards published in 2002 do not incorporate all of our standards, and there is a proposal to review both documents to evaluate the need to rewrite our own standards booklets.

The *Splinting Guidelines* are due to be reviewed and a number of members have expressed an interest in the project. It is proposed that Rowena Wright will lead the project, as she was one of the original project team.

The Communication Sub-Group has had two motions for the Annual Representatives' Conference accepted.

As my report indicates ACPIN has several new projects in the pipeline and two further events to organise. The next AGM will be on 20th March 2004 at the Hilton Hotel, Northampton, topic is still to be decided. I hope this clarifies some of the work that ACPIN carries out on your behalf.

Finally to you all, thank you for your loyalty and for making ACPIN such an exciting clinical interest group to belong to.

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ADDRESS FOR CORRESPONDENCE

92 Redacre Road, Boldmere, Sutton Coldfield, West Midlands B73 5EE

Use of resistive exercise

for muscle strengthening in early stroke rehabilitation
A survey of UK neurophysiotherapists

M Jones Medical Student, University of Manchester, UK. Now House Officer, Orthopaedic Surgery, Royal Preston Hospital, Sharoe Green Lane North, Fulwood, Preston PR2 4QF.

R C Tallis Professor of Geriatric Medicine, University of Manchester, Clinical Sciences Building, Hope Hospital, Eccles Old Road, Salford, M6 8HD.

V M Pomeroy Professor of Rehabilitation for Older People, St George's Hospital Medical School, University of London, Cranmer Terrace, London SW17 0RE

The Stroke Association's Therapy Research Unit, University of Manchester

ABSTRACT

Background The majority of UK physiotherapists report using the Bobath concept with stroke patients which raises the clinical expectation that resistive exercises to increase muscle strength would not be used after stroke.

Objectives To find whether UK physiotherapists use resistive exercise for patients in the first three months after stroke and whether the decision to do so or not is based on research evidence, clinical experience, training or another reason.

Methods A closed question questionnaire was posted to 917 physiotherapists in the UK who were members of the Association of Chartered Physiotherapists Interested in Neurology (ACPIN). Physiotherapists sent the questionnaire were given three weeks to return it before being posted a reminder. Data were independently entered into SPSS 10 by the first author and the entry was checked by the last author. The frequency of responses were determined.

Results Of the 917 questionnaires 790 were returned, a response rate of 86%, and 704 questionnaires were suitable for analysis (77%). Of the 704 respondents 437 (62%) reported using resistive exercise. Most respondents gave clinical experience as the reason for their decision to use or not to use resistive exercise (74% of those reporting yes and 48% of those reporting no).

Conclusions This study found that the majority of respondents reported using resistive exercise for patients in the first three months after stroke and that clinical experience was the main basis for ACPIN members' decision to do so.

INTRODUCTION

The majority of physiotherapists in the UK report using the Bobath concept as a basis for their interventions with stroke patients (Sackley et al 1996, Davidson and Waters 2000). This concept appears to discourage activities that are effortful for the patient, such as muscle strength training. It might be assumed, therefore, that UK physiotherapists would avoid using resistive exercise. However, conventional clinical practice could be influenced by experimental evidence which is now beginning to challenge predominant clinical theory (Bourbonnais et al 1997, Brown et al 1997, Miller et al 1997,Mercier et al 1999, Teixeira-Salmela et al 1999, Bohannon et al 1991, Davies et al 1996, Butefisch et al 1995). It is difficult to be certain as physiotherapy remains a practical profession and written description of the actual content of therapy is limited (Lennon 1996). Studies which have described specific interventions suggest that there is heterogeneity in those used by therapists (Mickleborough et al 1997, Pomeroy et al 2001) which could be influenced by the content of initial physiotherapy training (Turner and Whitfield 1999) and/or based on clinical experience rather than experimental evidence (Sackley and Lincoln 1996, Nilsson and Nordholm 1992, Carr et al 1994). Clarification is required as there is now increasing interest in undertaking trials to evaluate the relative benefits of resistive exercise and conventional physical therapy. Such trials will be flawed if the assumption that conventional physical therapy does not include resistive exercise is incorrect.

To begin to explore whether conventional physical therapy in the UK contains resistive exercise this study focused on the following broad questions:

1. Do physiotherapists in the UK use resistive exercise for patients in the first three months after stroke?
2. What is the basis for physiotherapists' decision about the use of resistive exercise in the first three months after stroke: research evidence; clinical experience; training or another reason?

METHODS

We used a closed question, postal questionnaire for a cross-sectional sample survey (Robson 1993) of current practice. The definition of resistive exercise and survey questions were developed by the research team consulting with a research expert in the design, administration and analysis of surveys and also with clinical physiotherapists on secondment to our research unit. Resistive exercise was defined as:

> '*exercise designed to increase muscle strength with use of resistance to muscle activity/movement provided by a variety of means including gravity, body weight and external loads.*'

The definition was deliberately broad so that it would include a number of different interventions that have the

primary aim of increasing muscle strength whilst emphasising that the *aim of the exercise needed to be to increase muscle strength*.

The questionnaire was designed to fit on one side of A4 and, to ease completion, respondents were required only to tick boxes or give brief replies to questions. All respondents were asked to enter their professional grading and date of qualification. Respondents were asked whether they used resistive exercise for patients in the first three months after stroke and the reason for their clinical decision.

The questionnaire was sent with a covering letter and a stamped addressed envelope was enclosed to facilitate reply. If after three weeks the completed questionnaire had not been returned a second copy of the questionnaire was sent to non-respondents along with a further stamped addressed envelope.

RESPONDENTS

This questionnaire was sent to all physiotherapists (917 excluding the last author) whose names were listed in the database of members of the Association of Chartered Physiotherapists Interested in Neurology (ACPIN). ACPIN members were chosen as it is reasonable to expect that as members of the neurology special interest group they would influence the practice of non-members. We made the assumption that ACPIN members were both 'market leaders' and 'opinion-leaders'.

ANALYSIS

Data was independently entered into SPSS 10 by the first author and then checked by the last author. The data was analysed to determine the response rate and the characteristics of respondents in terms of professional grade and years of service. Analysis of the frequency of yes and no responses was then undertaken along with the frequencies of reasons given for use or non-use of resistive exercise.

RESULTS

Of the 917 questionnaires 790 were returned, a response rate of 86%. Of the 790 returned questionnaires 78 were not included in the analysis for the following reasons: physiotherapists were not working clinically (n = 11); physiotherapists did not see patients within three months of stroke (n = 56); physiotherapists did not accept the definition of resistive exercise (n = 8); questionnaires had been misdirected (n = 4); and no reason for non-completion (n = 1). In addition, eight questionnaires were excluded because of incorrect completion. This left 704 (77%) questionnaires for analysis.

The characteristics of the 704 respondents are given in *Table 1* which shows that the majority of respondents (47%) had been qualified for between three and ten years and the most frequently given professional grade was Senior I Physiotherapist (57%).

GEOGRAPHICAL LOCATION, PROFESSIONAL GRADING AND YEARS SINCE QUALIFICATION FOR RESPONDENTS

	Number of respondents	(%)
Professional grading (n = 703)*		
Clinical Specialist	24	3
Lecturer	10	1
Physiotherapist	20	3
Self-employed	15	2
Senior 2	153	22
Senior 1	398	57
Superintendent	83	12
Years since qualification (n = 704)		
Up to 2 years	26	4
3 – 10	332	47
11 – 20	231	33
> 20	115	16

* One physiotherapist did not give their grading

Table 1

Of the 704 questionnaires included in the analysis 65 respondents clearly identified whether or not they used resistive exercise but had ticked more than one box to give a reason for their practice. These dual responses have not been included. These data show that 62% (n = 437 of 704) of physiotherapists report using and that 38% (n = 267 of 704) of physiotherapists report not using resistive exercise to strengthen muscles for patients in the first three months after stroke (*Table 2*). Most physiotherapists gave clinical experience as the reason for their decision (74% of those reporting 'yes' and 48% of those reporting 'no', *Table 2*). Experimental evidence was chosen as the reason by 17% of those using resistive exercise and 10% of those not using resistive exercise (*Table 2*). Training was the least popular reason with 2% of those using and 20% of those not using resistive exercise ticking this box (*Table 2*). The 'other reason' option was chosen by 7% of those using and 22% of those not using resistive exercise (*Table 2*).

The other reasons informing the clinical decision to use or not to use resistive exercise in the first three months after stroke are given in *Table 3*. Interpretation of these responses is limited by the small number of physiotherapists giving an 'other reason' and the number of different responses obtained. The most frequently given reason for decisions about the use of resistive exercise were that physiotherapists 'focus on the normal movement/Bobath concept' rather than on increasing muscle strength (n = 25, not using).

PHYSIOTHERAPISTS REPORTING USE AND NON-USE OF RESISTIVE EXERCISE FOR PATIENTS IN THE FIRST THREE MONTHS AFTER STROKE AND MAIN REASON FOR DECISION

	No/ (%) using resistive exercise YES	No/ (%) not using resistive exercise NO
Reported use of resistive exercise (n = 704)	437 (62%)	267 (38%)
Reason for use or non-use of resistive exercise (n = 639)		
Experimental evidence	67 (17%)	25 (10%)
Clinical experience	291 (74%)	119 (48%)
Part of training	8 (2%)	48 (20%)
Other	27 (7%)	54 (22%)

Table 2

DISCUSSION

The finding that most respondents reported using resistive exercise with patients in the first three months after stroke is surprising as the majority of physiotherapists in the UK report using the Bobath concept (Sackley and Lincoln 1996, Davidson and Waters 2000) which appears to discourage resistive exercise. It is possible that these results have been influenced by a response bias where those not responding might have reported differently to those that did respond. This possibility seems unlikely however because of the high response rate, 86%, to this questionnaire. It is also possible that this sample of physiotherapists was not typical of the profession as a whole, because we surveyed a sub-group, ACPIN members, who were more likely to incorporate published research findings into their practice and therefore more likely to prescribe resistive exercise. The fact that most respondents based their choice on clinical experience however does not support this possibility.

Another explanation for these findings is that some of the respondents experienced difficulty with the definition of resistive exercise given in the questionnaire. It is of interest that one of the most frequent 'other reasons' given for using or not using resistive exercise was that physiotherapists 'use bodyweight in normal movement and/or functional training'. Questionnaires from eight physiotherapists had to be excluded from analysis because the respondents were unhappy with the definition of resistive exercise. The definition used was carefully considered for this study, further developed through discussion with clinical physiotherapists and was thought to be broad enough to embrace different clinical applications of resistive exercise whilst stressing that the aim of treatment is to *increase strength*. However, confusion might have been introduced by

REASONS* GIVEN WITHIN THE 'OTHER' CATEGORY FOR USING OR NOT USING RESISTIVE EXERCISE FOR PATIENTS IN THE FIRST THREE MONTHS AFTER STROKE

	No using resistive exercise (n = 27)	No not using resistive exercise (n = 54)
Reasons given in 'other' category		
Use bodyweight in normal movement/functional training	11	7
Useful for some patients/would use if beneficial	9	0
Other techniques more beneficial	0	4
No benefits for it	0	3
My clinical observation/ experience	3	4
Teaching of colleagues	2	1
Evidence from books & journals/no experimental evidence	2	2
My training/postgrad training	1	2
Only when no adverse effect on tone/associated reactions	3	0
Focus on normal movement/Bobath approach	0	25
Weakness not a factor in first three months/not relevant	0	8
Not considered this as a treatment approach	0	2
May be detrimental in long term	0	1
Dependent on many factors including severity	0	1
Use Motor Relearning approach	0	1
Not skilled in this technique	0	1
Acute stroke, low tone, nothing to resist	0	1
Patients fatigue too quickly	0	1

* Some respondents gave more than one reason

Table 3

reference to the use of bodyweight and gravity to provide resistance. Bodyweight and gravity are of course used in the Bobath concept to facilitate normal movement but not to increase muscle strength. Although only a tiny minority of respondents indicated confusion with the definition it is possible that some other respondents have said that they do use resistive exercise to strengthen muscles when, in fact, they are using these techniques for other purposes. However, in addition to the emphasis within the definition that the aim of treatment is to increase strength, use of the word resistive implies effort and strength training. Moreover respondents were encouraged to tick the YES option even if they only occasionally used resistive exercise. It therefore seems unlikely that respondents were confused by the definition.

Two obvious limitations of this study are that the format necessitated relatively superficial answers and the closed question format might have resulted in some physiotherapists feeling that none of the options were appropriate. The 'other' section might not have allowed for the expression of the full range of responses the physiotherapists would have given to a questionnaire with a more open format. However, it is arguable that the brevity of the questionnaire contributed to the high response rate. As always in questionnaire-based research, there is a trade-off between the amount of information required by the questionnaire and the response rate.

Although this study found that most physiotherapists report using resistive exercise to increase muscle strength in the first three months after stroke it is possible that actual use differs. However any questionnaire has the limitation that it captures reported rather than actual clinical behaviour. Validity testing might involve testing the agreement between actual and reported use and this is a possible task for future studies. In the absence of clarity about the content of clinical practice in this area it seems essential to be wary of making assumptions about the actual content of conventional physiotherapy when making comparisons in evaluative research. For example a recent trial comparing the Bobath and Motor Relearning approaches only described the content of therapy on the basis of the philosophy of the two approaches (Langhammer and Stanghelle 2000). The results of this questionnaire study, and others (Mickleborough et al 1997, Pomeroy et al 2001), highlight that research studies comparing two interventions given in addition to conventional therapy or comparing a new intervention to conventional therapy need to give careful attention to describing the content of conventional therapy (Pomeroy and Tallis 2000), rather than to make assumptions about content.

ACKNOWLEDGMENTS

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ADDRESS FOR CORRESPONDENCE

Professor VM Pomeroy
Centre for Rehabilitation and Ageing
Geriatric Medicine
St George's Hospital Medical School
Cranmer Terrace
London
SW17 0RE

Telephone: 020 8725 5327
Fax: 020 8682 0926
Email: v.pomeroy@sghms.ac.uk

Bhanu Ramaswamy is currently Senior I, medical rehabilitation wards (including general rehab and renal, many of which are older folk) at the Northern General Hospital, Sheffield. This study was completed as part of an assignment from the Neurological Rehabilitation module on a Sheffield Hallam University Masters. This module was done last year to provide the evidence base/rationale for a posturally-biased exercise programme we run in the community weekly, and at the hospital for people with Parkinson's. The non-PD carers who attend with their spouses have also found it of benefit. The PDS were looking to make a video and accompanying booklet about an exercise intervention, and this came along at the right time, so the programme is being released next month by the PDS.

A posturally-biased

exercise programme for people with Parkinson's

In the past few years, there has been an increasing focus from the Government on addressing issues for the older population. Implicit in Department of Health policies, from *Caring for People* (1989) to *National Service Framework (NSF) for Older People* (2001), is the need to tackle chronic illness due to the growing impact of health and social service issues as the nation 'greys'.

The evidence to date of overall physiotherapy interventions with PD sufferers is either poor or absent and does not substantiate anecdotal reports from professionals, people with PD or carers regarding the effectiveness of input. An Effectiveness Bulletin on neurological conditions published by the Chartered Society of Physiotherapy (2001) concluded that many areas of physiotherapy had yet to be sufficiently evaluated, and the results from reviews, such as the two Cochrane systematic reviews (Deane et al 2001 a & b) and Reuter and Engelhardt (2002) cannot be read to imply lack of effect as both were inconclusive regarding the effectiveness of physiotherapy interventions. An aim of the exercise regime documented, therefore, is to establish a rationale for the exercises included, based on available evidence that might be proposed as one 'standard' approach in the treatment of PD.

During the development of this regime, articles on other styles of exercise (anecdotally recognised as having a positive effect on PD) were sought for review, including the Alexander Technique (Stallibrass 1997), Pilates (Reyneke 1993), Conductive Education (Kinsman 1986, Kinsman et al 1988, Brown 2000) and Tai Chi (Li et al 2001, Jancewicz 2001, Lan et al 2000, Hong and Robinson 2000), although not all looked specifically at PD. Common underlying themes to them all seemed the use of cognition to promote posture and body awareness or control of movement with emphasis on slow, flowing movements. All were timed with breathing to induce relaxation. These core principals follow a rationale suggested by both Morris (2000) and Schenkmanet al (1998) that suggest focus on postural control during movement.

The author bases the proposed regime on this concept of action systems of motor control, and three therapeutic models outlined below:

1. The Movement Enablement Through Exercise Regimes and Strategies (METERS), which advocates the promotion, maintenance and use of quality functional performance by focussing on four core areas of physiotherapy practice – gait, balance, posture and transfers (Plant et al 2000) and detailed further in the *Guidelines for Physiotherapy Practice in Parkinson's Disease* (2001).
2. A model put forward by Meg Morris for physical therapists (2000) advocating a task-specific approach to training within the context of functional tasks.
3. A rationale for the management of individuals with PD by Schenkman et al (1989), using a systematic approach to evaluate, interpret and treat PD patients.

In the proposed regime, emphasis has been placed on minimising musculoskeletal limitations and postural deformities in order to preserve the individual's capability for independent function as long as possible. Much is made of regaining rotation as the author has found clinically, that it is a powerful tool in inducing relaxation and decreasing rigidity (and hypothesises that this is due to restoration of muscle balance between flexors and extensors), and is also a necessary component of balance reactions and functional activities.

The programme utilises activity from two separate motor control systems: the medial system (concerned primarily with axial musculature contraction and extensor innervation), necessary for postural and anti-gravity work and the lateral system (concerned with distal limb movements and flexion innervation), necessary for speed and agility in movement (Buchwald 1967, Stockmeyer 2002).

It is hypothesised, therefore, that by following this regime of relaxation, breathing control and slow, controlled movement at a conscious level, the resultant effects should be twofold – in physical terms, there could be benefits from better posture (and therefore balance and respiratory status), as well as control of movement (with subsequent influence on delayed progress from poverty of movement on physical function eg transfers, gait). In psychosocial terms, the group intervention will have a positive effect on the aspects of the disease eg well-being, social participation etc, whilst better physical ability will lead to improvements in confidence and independence.

The exercises progress through postural sets of lying, into sitting and then into standing, allowing work on core stability and single limb range of movement in lying to more complex sequences involving bilateral or diagonal limb movements where the base of support is progressively decreased and the complexity of the

A SUMMARY OF THE EXERCISE PROGRAMME, THE EXERCISE AIMS AND SOURCE THAT BACKS UP/RECOMMENDS THE EXERCISES

EXERCISE	AIM	LITERATURE
Relaxation	Reduces daily tensions prior to exercising, heightens awareness of the different parts of the body and starts to decrease rigidity to allow increased flexibility.	Franklyn 1986, Schenkman et al 1998, Morris et al 1999, Body control Pilates
Breathing exercises	Further reduces tension and increases vital capacity of the lungs.	Schenkman et al 1998
Exercises in lying		
Neck rolling	To increase range and freedom of movement of head on trunk. To aid increased visual input and balance (anticipatory and reactionary strategies). Encourage posture/ positioning of the head.	Weinrich et al 1988, Schenkman et al 1998, Di Fabio and Emasithi 1997
Pelvic tilt	To improve range and smoothness of movement in pelvis for activities of weight transference eg sit to stand, walking. Strengthens trunk muscles used for core stability.	Norris 1995
Knee opening	Core trunk stability whilst controlling movement and range of a single limb, also stabilises the pelvis in transverse plane.	Norris 1995, Hodges et al 1997 & 2000
Knee lifts	Progression of knee opening, still with single limb action, but in a different plane of movement, pelvis stabilisation in sagittal plane.	Norris 1995, Hodges et al 1997 & 2000
Leg stretch	Progression of the knee lift, but increasing core stability control as controlling a fully lengthened limb (long lever). Pelvic stabilisation.	Norris 1995, Hodges et al 1997 & 2000
Arm reaching	Single limb arm stretch for range to arm, shoulder girdle complex (including the scapula) and thoracic spine.	Norris 1995, Hodges et al 1997 & 2000
Arm and leg stretch	Increase complexity with dual tasks to control opposing limbs for core stability and diagonal limb range.	Norris 1995, Hodges et al 1997 & 2000
Exercises in sitting		
Sitting posture	Posture maintenance with mental rehearsal of good alignment for sitting and standing tasks.	Franklyn 1986
Sitting pelvic tilt	Progression of pelvic tilt exercise in lying, with maintenance of upright posture.	Norris 1995
Trunk rotations	Improve range and freedom of trunk rotation to separate upper trunk from lower trunk for counterbalance in walking and to maintain balance in tasks involving reaching or twisting.	McNiven 1986, Schenkman et al 1998
Exercises in standing		
Rocking on feet: Forwards and backwards	Forwards and backwards sway to increase balance within cone of stability in one plane, and then reduce rocking movement until standing with weight evenly at best point of balance. For weight transference for sit to stand, walking etc and input to the ankle strategy for balance especially as many PD patients fall backwards. Improves postural control and increases confidence for tasks in steady standing.	Horak et al 1992, Woollacott & Shumway-Cook 1990, Daleiden 1990, Manchester et al 1989
Rocking on feet: Side to side	Repetition of the above exercise in the coronal plane.	Horak et al 1992, Daleiden 1990, Woollacott & Shumway-Cook 1990, Manchester et al 1989
Circling on feet	Combination of above two exercises circling in one direction, and then the next to combine hip and ankle balance strategies plus weight transference in all directions.	Horak et al 1992, Woollacott & Shumway-Cook 1990, Daleiden 1990, Manchester et al 1989
Sideways arm stretch	Complex co-ordination of bilateral out of phase arm control in two planes with neck rotation.	
Rotation in standing	Progression of rotation exercise in sitting, with maintenance of upright posture.	Schenkman et al 1998, Morris et al 1999
Rotation with stepping	Progression of the above exercise, but inclusion of a step to the side rotating to increase need for control of weight transference and smooth stepping skills.	Schenkman et al 1998, Morris et al 1999

continued overleaf

EXERCISE	AIM	LITERATURE
Stepping forwards	Exercise to practice length and quality of stepping action, to aid balance, initiation problems, co-ordination of aspects of a step forwards in preparation for controlled walking.	Murray et al 1978, Behrman et al 1998 with verbal instructions, Franklyn 1986, Daleiden 1990, Charlett et al 1998
Stepping backwards	Repeat of the above exercise but backwards, to also increase hip and trunk extensor control in preparation for walking.	Daleiden 1990, Charlett et al 1998
Standing bend and stretch with knees bent	Full body stretch with arms up to the ceiling combined with deep breath in, and slow, controlled knee and hip flexion to touch floor on the breath out. Multi-tasking with sequences of movements whilst maintaining body control from extension through flexion, and postural adjustments. Useful for balance, flexibility of spine, limb range of movement and sit/stand tasks.	
Standing bend and stretch with knees straight	Full body stretch with arms up to the ceiling combined with deep breath in, and slow, controlled hip flexion to touch floor on the breath out. Further challenges balance, as the reach to the floor demands greater control as there is no knee flexion to counter forward movement.	
Loosening twist	End of the programme with free action rotation from side to side, allowing arms to swing freely aiding momentum of twisting action. To relax body in the standing position, but also a challenge to standing balance in the face of maintenance of good posture and speed of movement.	

movements increased. Elements of strengthening, balance, co-ordination of movements and flexibility are incorporated into the exercises, and most of the exercises are synchronised with breathing, and all done at a cognitive level, and with auditory cues (Morris et al 1999, CSP Effectiveness Bulletin 2001, Plant et al 2001).

Morris (2000) points out that there is little use in working on individual symptoms if the training does not generalise to function such as standing and walking, so the final exercises concentrate on aspects of stepping and sit to stand control hopefully resulting in transfer of skills to gait and transfers. The table above summarises the exercises recommended and the aims behind the movement.

No specific bed mobility or floor transfer exercises are done as the task of getting onto and off the floor to perform the lying exercises require similar skills. The therapists assist and instruct the patient in how to get on/off the floor as necessary.

All the exercises can be modified so some of the standing ones are done with arm support if the patient is very unstable, or in sitting, where the bottom becomes the base of support. Throughout the sitting and standing exercises, maintenance of best postural alignment is stressed.

Learning is achieved in stages, and in this concept it is widely accepted that the earlier stages of learning are cognitive in nature (with communication playing a large role in the process), becoming more automatic as time goes on. This theory fits in well with what we know about people with parkinson's Disease needing more external cues, and to work cognitively to access their motor systems.

Best practice would dictate a holistic exercise regime, but as Sheffield has a good Speech and Language service for those that require work on facial muscle tone and voice production/amplification the content of the proposed class could concentrate on a more defined aspect of postural control.

The class could be limited to those in the earlier stage of the disease due to the cognitive level required to achieve best results from this programme.

The next stage of this theoretical regime is to prove its effectiveness through research as one 'standard' approach in the treatment of PD.

The Parkinson's Disease Society have made a video of this regime with an accompanying booklet that will shortly be released for use by the general public. The author felt it would be of use if therapists were aware where the evidence for such an exercise programme had been gained before viewing the programme.

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Karen Baker Senior Physiotherapist, The National Hospital for Neurology and Neurosurgery

Trunk mobilisations

and their effect on lung expansion in neurosurgical patients: two case studies

Patients who have undergone complex neurosurgical procedures can experience prolonged periods of immobility and require mechanical ventilation as a result of abnormal breathing patterns and respiratory muscle weakness. These changes can inevitably affect posture and thoracic mobility and may predispose them to using compensatory strategies, which will affect movement (Edwards 2002) and may also reduce the efficiency of many other functions of the trunk such as ventilation.

The thorax functions to facilitate ventilation ie inflow and outflow of air between the atmosphere and lung alveoli and to protect the thoracic structures (Gamble 2002). To be able to perform these functions the musculature needs to be able to provide stability with mobility. Farley (2000) reported that 'trunk muscles can be activated to meet functional requirements for combined behaviours'.

It is postulated that by improving trunk posture and stability a direct effect on respiration is produced by causing an improvement in lung expansion. Authors imply the theoretical link between the importance of thoracic musculature and posture on respiration, Davies (1990) wrote that 'Both the extensors and flexors of the trunk are directly related to respiration'. However, no previous research to date has been performed on this topic.

Edwards (2002) defines trunk mobilisations as 'movements of the trunk, facilitated by the physiotherapist, which are used to modify abnormal tone and improve alignment'.

This treatment aims to improve alignment of the trunk and pelvis with regard to midline, to facilitate active trunk movement and regain proximal stability around the trunk and pelvis.

Work has been done on the effect of manual therapy on lung function. Viberk (1989) studied 14 patients with Cystic Fibrosis aged between 10 and 23 years, who had a varying severity of illness. He evaluated the effect of a 20-minute session of manual therapy on chest excursion, FVC, FEV_1, PEFR and oxygen saturation. After manual therapy, thoracic excursion increased and overall small increases were seen in FVC and FEV_1, although these were not statistically significant. A statistically significant increase in PEFR was found.

Similar results were seen in the Borgensen and Slokvik (1989) study (reported in Viberk 1989).

Kolakowski, Taylor and Hoffstein (1989) studied male patients with emphysema. They monitored oxygen saturation during treatment and for 45 minutes following physiotherapy treatment. Their relaxation treatment aimed to improve thoracic mobility and to assist in respiration. They found a small, but statistically significant increase in chest expansion post treatment.

All the above studies were performed on patients with normal neurology and obstructive lung disease. It is therefore difficult to relate these studies to patients with neurological deficits, and those presenting with restrictive lung disease. This study, therefore aimed to investigate these patients using the same measuring parameters.

METHOD

Two subjects who had undergone neurosurgical procedures were chosen and consent was gained for their participation in this study. The two were also medically stable. Each subjects' Forced Vital Capacity (FVC) was taken immediately before and after treatment in a seated position. Their oxygen saturations were also taken before, during and after treatment.

Procedure for measurement

Each subject was seated in either his or her wheelchair. Subjects were then asked to take a deep breath in and then to breath out for as long as possible. Subject A was able to use a spirometer orally, while for Subject B the spirometer was attached to a catheter mount and then placed onto his tracheostomy tube. The subjects repeated this procedure after a 30-second rest, three times. Oxygen saturation was measured in both using a finger probe.

Method of treatment

Subject A was treated daily for four days. Subject B was treated daily over two weeks and two days. Neither subject was treated during the weekend.

Treatment consisted of 45-minute sessions, aimed at improving selective control of the trunk and pelvis by increasing muscle activity and normalising tone (trunk mobilisations). This was predominately performed in side lying, sitting and standing (see *Figures 1*, *2* and *3*). Treatment could not be standardised, as it was not appropriate to use every position at each treatment session and the method of facilitating trunk activity required adaptation according to the patient's presentation.

Figure 1 Side lying

Figure 2 Sitting

Figure 3 Standing

Side lying Subjects were facilitated by the therapist to perform active/active assisted upper trunk (ribs and thoracic spine) movements, into flexion/extension whilst maintaining a stable pelvis.

Sitting Subjects were assisted to perform selective lumber and thoracic spine, pelvis and rib cage movements to regain as normal symmetrical alignment as possible.

Standing An Oswestry standing frame was used to enable the subjects to stand while abdominal and gluteal activity was facilitated through therapeutic handling. This was performed with the aim of increasing postural control and normalisation of tone within the trunk.

Subject A

A 72 year old lady, CD, was admitted to A&E on 17 April 2002 complaining of lower limb weakness. She was CT scanned in the A&E department and found to have TB (tuberculosis) of the spine with an abscess at T3. She was then transferred to a specialist neurosurgical unit and on the 19 April 2002 this abscess was removed via a thoractomy and then fixed via pedicle screws. CD was known to have abnormal thyroxine levels prior to this, with no other prior medication history. Post operatively CD developed acute respiratory failure requiring intubation and mechanical ventilation on the neurosurgical intensive care unit. She developed chest infections, multi-resistant staphylococcus aureus (MRSA) and unstable arrhythmias. Ten days post operation CD had a percutaneous tracheostomy inserted. She was weaned off mechanical ventilation at the end of June and transferred onto surgical wards in July. Her tracheostomy tube was removed in the beginning of July, a couple of days prior to her participation in the study.

CD presented with low tone quadraparesis with her lower limbs weaker than her upper limbs, right weaker than left. She had kyphotic posturing with a stiff, immobile, and malaligned thoracic spine. She was unable to sit independently and was dependent for maximum assistance for all transfers. Treatment concentrated on gaining sitting balance through pelvic tilt, trunk flexion and extension activity and mobilising the thoracic spine, and this was carried out in all three positions as mentioned previously.

CD had been assessed for a suitable wheelchair seating system and was being seated for a two hour period once a day in this wheelchair.

CD was transferred to another hospital after four treatment sessions, and hence only four measurements could be taken.

Subject B

15-year-old TT was admitted to the neurosurgical care unit following an elective removal of a fibrous dysplatic legion in his basal skull on the 14 April 2002. This was complicated by a rebleed and required removal of the haematoma on the 18 April 2002. Since this event, TT had remained on mechanical ventilation. He had a percutaneous tracheostomy inserted ten days prior to his rebleed. He had been undergoing a weaning programme. When the study began TT was tolerating pressure support ventilation with synchronized intermittent mandatory ventilation at night. He had just begun 30-minute periods of daily continuous positive airway pressure.

TT presented with low tone quadraparesis right greater than left. He was also beginning to demonstrate some increased tone in his lower limbs particularly hamstrings graded as two on the Ashworth Scale on knee extension. He was able to recruit some active trunk, upper limb and lower limb movement but with ataxia and therefore had decreased co-ordination of movement on all activities. He was unable to sit independently and was dependent for maximum assistance for all transfers. TT was being seated in a tilt-in-space seating system with head support and tolerated sitting out for a two hour period twice a day.

Treatment concentrated on the recruitment of abdominal muscle activity, through anterior-posterior pelvic tilt in sitting, and in standing. In side lying facilitation of co-ordinated upper limb and trunk movements was carried out while maintaining a stable pelvis.

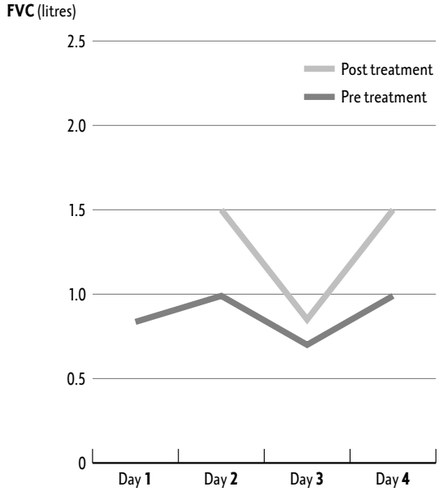
TT's FVC was tested pre and post treatments for twelve days. He was seen on a daily basis apart from Saturday and Sundays.

RESULTS

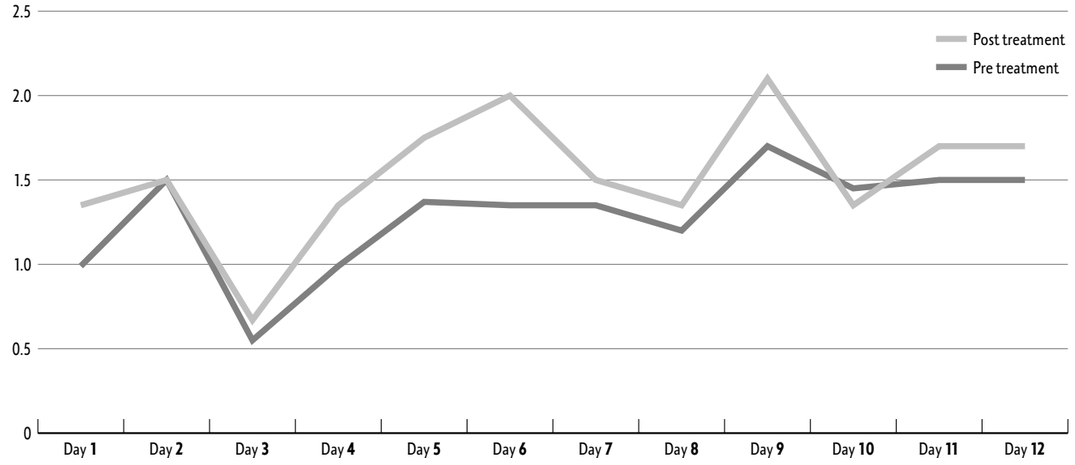
Patients FVC results shown, are an average of the three recordings pre and post treatment. The graphs below show Subject A's and Subject B's Force Vital Capacity (FVC) pre and post treatment. Subject A chose not to perform a FVC post treatment on Day 1. Days 1 and 2 were a Thursday and Friday respectively with Day 3 being the following Monday. Both subjects show an increase in FVC post treatment compared to pre treatment with both showing baseline increases in pre-treatment FVC over time. An Unrelated t-test was used on data from Subject B (This was unable to be performed for Subject A) with t = 1.98, df =22, showing the results to be statistically significant ($p < 0.05$ for a one-tailed hypothesis).

In both studies pre, during and post treatment oxygen saturations fluctuated between 99-100% daily.

CASE STUDY A



CASE STUDY B



DISCUSSION

The Forced Vital Capacity of these subjects following treatment could be seen to have increased over a series of measurement sessions. In Subject B this increase was also proved to be statistically significant. It is also interesting that both subjects' Forced Vital Capacity dropped following a weekend where both did not receive physiotherapy. The significance of this finding however, would need to be further investigated in a future study.

Subject A results demonstrated very little increase in baseline pre-treatment measurement over time. She was a 72-year-old who had undergone a thorectomy and therefore it could be speculated that age and her thoracic surgery had had an affect on her lung compliance, as demonstrated in these results. Pryor and Webber (1998) write, 'Reduced lung volume is an almost universal finding following upper abdominal surgery or cardiothoracic surgery'. They also comment that with ageing 'tissues become less elastic…and FVC fall with age'.

Although efforts were made to use similar measuring parameters as those from previous studies, this was found to be unworkable. The measurer did not have access to a vitalograph (as used in the two manual studies) and was therefore unable to take reliable objective readings of chest expansion.

The advantage of the spirometer used, was that it was very easy to implement clinically. It also provided a quick and easy outcome measure that was simple to replicate. Following the study the nursing staff and physiotherapists continued to take Subject B's FVC to use as a weaning tool. It would also be useful in future studies to use spirometers that take both FVC and FEV readings simultaneously.

It is possible that both patients daily increase in FVC's were due to training effects and further work is needed to discount this option. It is also difficult to rule out that the patients improved lung volumes were not due to other variables. Further work using an ABA design, a longer study or further case studies would assist in exploring this.

CONCLUSION

In this limited study, it was found that by working on patients' trunk posture and stability an improvement is in lung expansion is gained. However, further work is required to explore this hypothesis further.

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ADDRESS FOR CORRESPONDENCE

Karen Baker
Senior Physiotherapist
The National Hospital for Neurology and Neurosurgery
Queen Square
London
WC1N 3BG
email: karen_baker73Ayahoo.co.uk

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Postgraduate courses

For the last issue of Synapse (Autumn/Winter 2002) a large number of universities, which offer postgraduate courses for physiotherapy related to neurology were contacted, and each was given the opportunity to give a summary of relevant courses, duration, cost etc. A further two universities are featured here.

COVENTRY UNIVERSITY	
Course title	MSc Neurological Physiotherapy
Contact	Julie Sellars, Senior Lecturer in Physiotherapy Tel: 024 7688 7067 email: j.sellars@coventry.ac.uk
Institution address	School of Health and Social Sciences, Coventry University, Priory Street, Coventry CV1 5FB
How long has the course been running?	1 year
Mode of delivery and assessment	The course is designed to meet individual needs through a flexible modular structure and both full and part time routes are offered. Attendance at the university for the full time route is on two days per week, the part time route on one day per week. The clinical module involves two, four week, full time placements at a specialist unit. All taught modules are assessed by coursework assignments, the clinical module through performance assessment.
Brief content overview	This course is offered to physiotherapists who wish to extend their knowledge and professional expertise in neurological physiotherapy and is one of the few Neurological Masters that offers a clinical module. Building upon student's current knowledge and experience studies will critically evaluate existing evidence and then explore this in the context of clinical practice. Modules include: • Core Physiotherapy (18 M level credits) • Research Methodology: Design and Methods (24 M level credits) • Reviewing the Literature (12 M level credits) • Data Analysis (12 M level credits) • The Neural Control of Human Behaviour in Health and Disease (18 M level credits) • Neuro-rehabilitation (18 M level credits) • Clinical Practice (18 M level credits) • Dissertation (60 M level credits) The course reflects the interdisciplinary nature of neurological rehabilitation with shared teaching and learning across modules.
Cost	Under review at time of going to press. Please contact Julie Sellars for further information.
Duration	The full time route takes a minimum of one year and one term to complete, the part time route a minimum of two years and two terms. Students have up to five years to complete their MSc.
Award	Postgraduate Diploma in Neurological Physiotherapy (120 credits) MSc Neurological Physiotherapy (180 credits)

UNIVERSITY OF NOTTINGHAM	
Course title	Movement Science Based Approach to Stroke Rehabilitation
Contact	Julie Rowland, Course administrator email: Julie.Rowland@nottingham.ac.uk Marjan Blackburn, Module convenor email: marjan.blackburn@nottingham.ac.uk Paulette van Vliet, Module convenor email: paulette.vanvliet@ntlworld.com
Institution address	Division of Physiotherapy Education, School of Community Sciences, Clinical Sciences Building, Nottingham City Hospital Campus, University of Nottingham, Hucknall Road, Nottingham NG5 1PB
How long has the course been running?	Since 2002
Mode of delivery and assessment	This is a single module at masters level, which may be taken as part of the MSc in Continuing Professional Development or as a stand alone module. Teaching is delivered over a five day period, followed by two weekends, two and three months later. Independent learning occurs by guided reading and completion of the case study (written and presented, 4,000 words) which is used to assess the module.
Brief content overview	The module examines and illustrates the application of a movement science based approach to the analysis and training of the motor performance of neurological patients. The primary focus is on stroke rehabilitation, although the information is transferable to the rehabilitation of other neurological patients. A critical analysis of the relevant movement science literature and measurement of motor performance underpins all aspects of the module. In order to improve students' analysis of functional movements, the normal and abnormal biomechanics and motor control of walking, sit to stand, reaching, manipulation and postural adjustments will be examined. The process of choosing appropriate training strategies based on the findings of the analysis will be discussed. Facilitation of motor skill acquisition will be discussed and practised. Causes of decreased force production and changes in muscle tone following stroke will be examined, as well as strategies for preventing secondary musculoskeletal changes. The module will incorporate the use of training techniques to increase strength and cardiovascular fitness following stroke, and to increase variability of motor control. A critical element of the module will be the opportunity to apply the concepts of the approach to patients with stroke, with guidance from experienced tutors, in a considerable number of clinical sessions.
Cost	£750
Duration	Nine days, spread over three months
Award	20 masters level points

ACPIN news

ACPIN AGM 2003

MINUTES

Meeting opened at 12.03pm

1. Apologies

Professor Ray Tallis (lecturing in Australia).

2. Minutes from 2002

Carried as correct. Proposed by Karen Rowland, seconded by Rowena Wright.

3. President's report

Read by Anthea Dendy.

4. Chair's report

5. Treasurer's report

The vote for staying with the current accountants was carried by the membership.

6. Re-election of officers

- Linzie Bassett – remains as Chair
- Nicola Hancock – PRO and Vice Chair
- Cherry Kilbride – Honorary Secretary
- Mary Cramp – Research Officer
- Alison Baily Hallam – moves to Minutes Secretary
- Jo Tuckey – moves to Membership Secretary
- Jackie Newitt – Honorary Treasurer
- Louise Gilbert – CIGLC Representative for ACPIN
- Louise Dunthorne – *Synapse* Coordinator

All the above re-stands were carried by the membership.

The following people were voted in by balloting the membership present into the remaining executive posts:

- Emma Forbes: nominated by Catherine Graham, seconded by Cassie Gibson.
- Ros Cox: nominated by Naomi Gibson, seconded by Susanne Pender.
- Anne McDonnell: nominated by Jo Tuckey, seconded by Louise Platt.
- Joanna Nesbitt: nominated by Rosie Hitchcock, seconded by Ros Wade.

7. AOB

- Volunteer requested to review a book. Any interested party to seek out Linzie for further information.
- Anthea Dendy formally thanked Linzie Bassett for taking on another year as Chair, thus facilitating a smoother 'hand over' period to the Vice Chair.
- Anthea Dendy, Rosie Hitchcock, Ros Wade and Rowena Wright were all formally thanked by the Committee and membership for all their hard work over the years.

The meeting closed at 12.28pm.

PRESIDENT'S ADDRESS

Ray Tallis

I am really sorry not to be able to attend the Annual General Meeting of ACPIN this time round. While you are sampling the joys of the Hilton Hotel in Northampton, I shall be in the Royal Adelaide Hospital as the Nimmo Visiting Professor. Nothing less than a trip to the Antipodes would have prevented me from attending your meeting.

I must say I have enormously enjoyed my first year as President and I hope that you feel that, after a somewhat sluggish start, I have woken up a bit! There are two things that are uppermost in my mind at the moment.

Last year I managed to persuade the Academy of Medical Sciences that it would be appropriate for them to look at the interface between basic neurosciences and clinical practice in neurological rehabilitation. The Academy of Medical Sciences is a forum in which leading medical scientists and academic clinicians and other opinion formers meet. One of the key elements of the mission of The Academy is to ensure that advances in science are translated into benefits for patients in improved clinical practice and care. As many of you will know, I do feel that there is sometimes quite a gap between science and practice in neurological rehabilitation, notwithstanding the huge advances that have been made in our rehabilitation of patients with neurological problems, in particular stroke. The Academy Working Group is addressing four questions:

1. Are there new technologies ripe to be applied in clinical practice?
2. Are there theoretical reasons why more continuous dialogue between basic scientists and clinicians do not occur?
3. Are there barriers to such a dialogue and in particular do clinicians have difficulty getting involved in large collaborative projects with basic scientists?
4. And finally, are there any recommendations that can be made to address this?

I am very glad to have had the opportunity to sound out the opinion of those, who in my opinion, are best placed to address these questions, namely neurophysiotherapists. The Working Group has both a physiotherapist (Val Pomeroy) and an occupational therapist (Marion Walker) on it. Watch this space!

I am very worried about the implementation – or non implementation of the National Service Framework for Older People as it applies to stroke. National Service Framework, as I have frequently remarked, stands for 'No Sodding Funds'. The recent *Sentinel Audit* showed that only 27% of patients who sustained strokes received most of their care in an appropriate setting. This is a 2% improvement since the last audit, and on the basis of this it has been calculated that full implementation of the National Service Framework (due in 2004) will take approximately 73 years! Even more worrying, is the fact that in some places 'progress' is backwards. Managers, under huge pressures to respond to Government priorities, see rehabilitation as a 'soft target'. This is not only unethical but it is also self-defeating: if we do not rehabilitate our patients adequately, then lengths of stays will be prolonged and medical patients will spill more and more into surgical beds, as a result of which elective surgery will need to be cancelled. I imagine that many people in different hospitals up and down the country are experiencing reductions in their service but it would be wonderful if there could be a nationwide survey of physiotherapy input into stroke services. It would be very timely to do this in the summer because the Commision for Health Improvement is due to review stroke services and the implementation of the National Service Framework in 2004.

One of the most worrying aspects of the situation is that many resources are now being diverted from hospital because of the commitment to 'intermediate care'. My own view is that if care outside of hospital is adequate for patients, then there will be wasteful duplication of resources in small units and therapists and others will become intellectually very isolated. If, however, these new small units are not properly resourced then patients are at serious risk. The fact that 75% of National Health Service resources is now being disseminated through Primary Care Trusts (which have their own provider function as well as a purchasing function and therefore a conflict of interest) makes the situation even more perilous. All of this is doubly frustrating given that more and more impressive evidence has been accumulated over the last ten years as to the benefits of hospital-based fully organised stroke care both in terms of reduction of mortality and in disability. We may have a fight on our hands.

Once again I apologise for being approximately 10,000 miles away. My thoughts are, of course, much closer! With best wishes to you all.

CHAIR'S REPORT

Linzie Basset

The Chairperson's report is intended as a resume of the year's activities within the organisation and outlines future plans. Due to the ever-increasing number of projects undertaken by ACPIN, each sub group report is located on the display board. This report also allows me the opportunity to offer personal thanks to all the dedicated members of the National Committee. Sadly, this year sees the end of an era with the resignation of four longstanding committee members:

- Anthea Dendy, Vice Chair
- Rowena Wright, Membership Secretary
- Ros Wade, *Synapse* Coordinator
- Rosie Hitchcock, Executive Committee Member

We thank them all for their time, energy and commitment to ACPIN over the last few years and we wish them well in their future ventures.

In view of these changes it has been proposed that I remain Chair for one further year to work alongside the Vice Chair. Anthea Dendy, current Vice Chair, has issued notification of this to all members.

Kate Duffield (West Midlands), Emma Forbes (Scotland), Liz Self (Merseyside), Naomi Jones (Wessex), Jan Matthews (Northampton) and Anne Marie Knowles (Yorkshire) have resigned as Regional Representatives, we thank them and wish them well.

Professor Ray Tallis, our President, has been in post for one year and sends his apologies. He has been able to attend National meetings and has been an invaluable source of information and support. He has kindly accepted the invitation to lecture at Congress.

Membership continues to flourish, at the end of 2002 we had 1370 members, so far 1000 members have renewed, an increase of 150 on this time last year, 200 of these being new members. I think this indicates how successful ACPIN is as a clinical interest group and that it is truly meeting the demands/needs of all our members. The database co-ordinator's role is ever expanding as ACPIN continues to grow.

Since the last AGM we successfully hosted a programme at Congress alongside the CSP. Yet again the programme appeared to be extremely popular with an average of 200 delegates attending each lecture. The fringe meeting evoked a lot of discussion and proved to be a challenging adjunct to the weekend. We are in the process of finalising the 'progressive disorder' programme for this year's Congress – dates being 17th-19th October 2003 at the ICC Birmingham. Another fringe meeting is planned, discussion topic to be decided, alongside an ACPIN supper.

Synapse continues to develop and provide the vital communication link between members and the committee. For its high standard to be maintained it depends on you as members submitting material. As always I urge you to contribute to your journal. I would like to thank Ros Wade, Louise Gilbert, Louise Dunthorne and Kevin Wade our graphic designer.

ACPIN and Elan Pharmaceuticals combined forces recently to host study days on the management of spasticity. The days seem to have been well attended.

Applications were invited in the Spring edition of *Synapse* for the small bursary provided by ACPIN to support research and project work. One application was received and the person concerned received a small amount of money to assist in their research. Invitations for this year's bursary will be in the next issue of *Synapse*.

Following the plea by the CSP for research questions for the Research Priorities Project – neurology panel, a full pack has been published – the whole pack costs £50, individual specialities £10, definitely worth investing in.

On a more serious note, Ralph Hammond recently contacted ACPIN concerning the lack of support by ACPIN members in the publication of NICE Guidelines for HI and particularly MS. There needs to be wide consultation of the draft guidelines before the final document is published. This is our opportunity to demand improved services/ resources for our patients.

I am keen to hear from members who are interested in reviewing these documents on behalf of ACPIN and the CSP. There has been concern that the CSP Standards published last year do not incorporate all of our own standards, and there is a proposal to review both documents to evaluate the need to rewrite our own Standards' Booklets.

The splinting guidelines are due to be reviewed and a number of members have expressed an interest in the project, which will be led by Rowena Wright who was on the original panel.

The Communication Subgroup has submitted two motions for the Annual Representatives' Conference. Both have been accepted which is very encouraging.

At the last AGM, it was mentioned that our existing constitution requires updating, and in light of ACPIN's current committee changes, this is a priority. The Executive Committee is currently drafting a new constitution, which will be available for consultation later this year. We would value your comments.

The new constitution will be formally voted in at next year's AGM, which will be here (Hilton Hotel, Northampton) on 20th March 2004 – topic to be decided!

So, thank you all for listening. I hope this reassures you and clarifies the work that ACPIN carries out on your behalf.

Finally, to you as members, thank you for your continued support and loyalty and for making ACPIN such a dynamic organisation.

TREASURER'S REPORT

Jackie Newitt

For the year end 31st December 2002.

Income and Expenditure

This year has been more successful for ACPIN in terms of balancing the books. Both our income generated and expenditure have been lower than last year and there is an overall deficit of just £3.00. (*Figure 1*).

INCOME AND EXPENDITURE

	2002 £	2001 £
Income	41,940	54,302
Expenditure	41,943	64,391
Surplus/(Deficit)	(3)	(10,089)

Figure 1

In 2001 the residential *Balance and Posture* course was heavily subsidised by ACPIN for the membership. It was well attended but resulted in high income and expenditure figures for 2001. This year we did not run our own residential course.

Income (*Figure 2*) for 2002 came from three main sources:

- Membership Fees increasing from £25,870 to £26,940
- Course Fees £11,499 (£24,079 in 2001)
- Capitation received £2,584 (£2,434 in 2001)

ACPIN database requests (£454) and the Manual Handling Guidelines (£334) each continued to bring in a small income.

Figure 3 shows that running courses remains our largest expenditure (£12,894).

Synapse has traditionally been our second biggest expense but this year travel expenses and administrative costs have continued to rise and are now equal with it.

The ACPIN website was set up in 2001 and yearly maintainence costs of £1,422 are now part of the ACPIN expenditure.

A break down of the courses run in 2002 is shown in *Figure 4*.

INCOME 2002

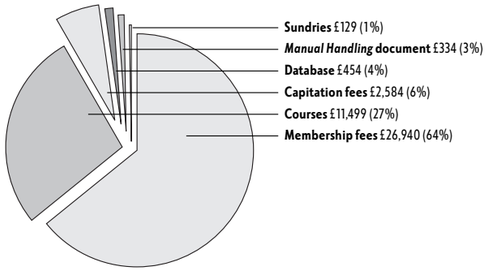

Figure 2

EXPENDITURE 2002

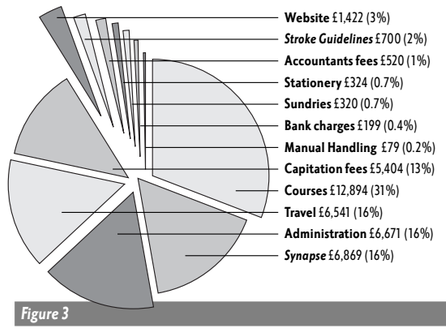

Figure 3

COURSE BREAKDOWN

	Income	Expenditure	Surplus/(Deficit)
	£	£	£
Spinal Injuries	3,975	6,448	(2,473)
CSP Congress	7,524	6,446	(1,078)

Figure 4

The income received for Congress is from the CSP in the form of capitation fees for ACPIN members who attend.

Balance sheet and financial statement

The balance sheet for 31st December 2002 (see *Figure 5*) showed a net deficit of £3.00 and the capital and reserves carried forward from that date were £10,316.

BALANCE SHEET AT 31.12.2002

	2002	2001
	£	£
Current assets	17,438	17,206
Current liabilities	7,122	6,887
Net current assets	10,316	10,319

Figure 5

Planning for 2003 – ACPIN's Reserves

National ACPIN's events and activities have to be planned and organised one to two years in advance. To ensure that the organisation is protected for this type of expenditure it is essential that ACPIN maintain sufficient reserves (see *Figure 6*). Increasing administrative costs and travel expenses, along with the expenditure on national courses, led to the Executive Committee last year agreeing to the following measures that should ensure ACPIN's resources remain adequate:

- An increase in the membership fee of £2.50 bringing the current rate to £22.50.
- A reduction in the number of national and executive committee meetings from eight to five per year to decrease expenditure on travel costs and administration.

CAPITAL AND RESERVES

	£
Balance brought forward	17,206
Surplus/(Deficit)	6,887
Balance carried forward	10,319

Figure 6

Copies of Accounts for 2002

Full copies of the ACPIN accounts are available on request.

Vote for Accountants

Vote to retain current accountants for 2003

Langer and Co
8-10 Gatley Road
Cheadle
Stockport
SK8 1PY

EXECUTIVE COMMITTEE

Linzie Bassett
Chair ACPIN

Following the AGM in Northampton on March 22nd, 2003, four new members were voted onto the committee. The new committee is as follows with the supporting statements from the new members below:

- **President**
  Ray Tallis
- **Honorary Chair**
  Linzie Bassett
  (agreed for one additional year)
- **Honorary Vice Chair**
  Nicola Hancock
- **Honorary Treasurer**
  Jackie Newitt
- **Honorary Secretary**
  Cherry Kilbride
- **Honorary Research Officer**
  Mary Cramp
- **Honorary Minutes Secretary**
  Alison Baily Hallam
- ***Synapse* Coordinator**
  Louise Dunthorne
- **CIG Liason representative**
  Louise Gilbert
- **Committee member**
  Jo Tuckey
- **New Committee member**
  Ros Cox
- **New Committee member**
  Jo Nesbitt
- **New Committee member**
  Emma Forbes
- **New Committee member**
  Anne McDonnell

Supporting statements from the new committee members:

Ray Tallis President

Linzie Bassett Chair

Jackie Newitt Treasurer

Louise Dunthorne *Synapse* Coordinator

Ros Cox New committee member

Jo Nesbitt New committee member

Emma Forbes New committee member

Ros Cox

I am currently working part time as a Senior I Physiotherapist on the Stroke and Elderly Rehabilitation Ward at Poole Hospital. I have specialised in neurology for seven years and particularly in stroke rehabilitation for the past three. I now lead a team of staff and my role involves teaching and supervising my staff clinically as well as development of the stroke rehabilitation services with the MDT. I was also involved in setting up the acute stroke unit including the development of a care pathway.

At present I am working on a multidisciplinary assessment tool for stroke and I am hoping to carry out single case studies with the Head OT on constraint induced movement therapy for the upper limb.
I have attended the last three CSP Congress ACPIN programmes and I feel committed to professional development.

I have been a member of ACPIN for seven years and an active committee member of Wessex ACPIN for four, two as secretary and the last two as regional representative. I have been involved in organising lectures and study days and setting up yearly programmes for our members. We have worked hard at improving links and communication within our region. By attending the National Committee meetings I feel I have a greater understanding of the aims and objectives of ACPIN and its constant growth and development.
As an honorary member of the Executive Committee I would be able to use my previous experience in neurology and ACPIN involvement to further develop national objectives and assist in organising events, improving communication between members and supporting the other honorary officers.

I have the full support of my manager for this post and it would be an exciting opportunity to further my involvement with ACPIN.

Jo Nesbitt

I am a senior physiotherapist working part time in a neuro-rehabilitation unit in Southampton. This allows me to work with patients suffering from a variety of neurological conditions. It has enabled me to appreciate the valuable role that physiotherapy and the MDT can play in facilitating an improved quality of life for these clients. The other part of my job is as extended scope practitioner in the botulinum toxin clinics. This includes pre and post assessments, injecting and educating therapists within the Wessex region. I also teach on an ad hoc basis on the neurology module at the University of Southampton.

I am just completing a masters degree in rehabilitation studies. This has complemented my clinical role well, encouraging me to challenge myself in all aspects of my work, to reason intervention and enhance the physiotherapy evidence base. My research project is focusing on aerobic exercise for patients with multiple sclerosis, an area currently not well understood. Although this project is only on a small scale, it has had very significant results. It has also proved very valuable in understanding the research process, appreciating recruitment difficulties and providing a strong basis on which to expand in the future.

The interest in research has also meant that I have become involved in a study looking at fallers following stroke and the validation of a fall assessment tool for use in the future. I am very interested in improving the efficacy of our profession by enriching the evidence behind what we do.

I have been a member of the Wessex ACPIN committee for five years and currently hold the position of Chairperson. We are an active committee organising regular evening lectures and courses. We are currrently linking with NANOT to widen the breadth of topics that we cover. ACPIN offers an opportunity to strengthen my professional relationship with other clinicians in the area and gain insight into current research that is occurring within neurophysiotherapy. Within a role on the Executive Committee I hope I can bring my experience of research and further enhance links and become involved in the issues pertinent to us as physiotherapists in neurology.

Emma Forbes

At present I am a Senior I physiotherapist working in a multi-disciplinary disability and brain injury outreach rehabilitation team.
I have been part of this team for four and a half years. In my role I treat patients but also teach Senior II therapists, rehabilitation assistants and students. I actively participate in the neurology clinical effectiveness network and at present have submitted our latest literature review for publication. I have been a member of ACPIN for four years and have been on the Scottish Committee for all of those four years. For three years I have been the Scottish Regional Representative. During this time I have been involved in writing motions for the Annual Representative Conference, writing regular regional reports and article reviews for *Synapse*.

As Regional Representative I also fulfilled a role of keeping the Scottish membership up to date with national issues by producing a regular Scottish Newsletter.

I feel this role is essential for the Scottish membership to increase their awareness of current activities. As a member of the Scottish Committee I am also heavily involved in planning and organising the Annual Study Day Programme.

As a member of the Executive Committee I would continue to provide this essential contact with the Scottish membership, supported by and supporting the Regional Representative.

My knowledge of ACPIN activities and national neurological activities have increased over the last three years of being the Regional Representative and feel I can use this knowledge by becoming increasingly involved with ACPIN activities.

I would see the opportunity to become involved in National Executive activities beneficial to myself, my workplace and the Scottish membership.

Anne McDonnell

I have specialised in neurological physiotherapy for the last ten years and am currently working as a Clinical Specialist at the National Hospital for Neurology and Neurosurgery.

I have been an active member of ACPIN since 1992. More specifically, I was Membership Secretary and Regional Representative for East Anglia ACPIN in the mid 1990s and since moving to London in 1998, I have been on the London ACPIN Committee, becoming Regional Representative from 2000 onwards.

I am a keen supporter of local and national ACPIN events. I have attended most of the local ACPIN

events and committee metings within the smaller group of East Anglia and the larger group of London ACPIN, as well as attending the study days and conferences. I therefore have a wide understanding of ACPIN's role, organisation and support on a local and national level.

Being a Regional Representative for both groups, I have attended many national committee meetings, and have been able to appreciate the wide variety of activities in which ACPIN has, and continues to be involved in. I have demonstrated my dedication to ACPIN over the years and feel that with my past knowledge of ACPIN, I am in a good position to continue to progress ACPIN by being part of the National Committee.

We welcome these new members to the committee, but thank all the candidates for their interest. It is extremely encouraging that ACPIN can attract such interest for committee posts, and that many of you are prepared to commit your free time and energy to promote neurological physiotherapy.

ACPIN RESIDENTIAL CONFERENCE

Movement dysfunction in the upper limb…can we manage it ? A delegates perspective

Sally de la Fontaine
Surrey & Borders ACPIN

I was 'volunteered' to provide a summary of the two day conference and hope my perspective will encourage others to attend these enjoyable conferences in the future.

Organisation The number of applicants for the conference exceeded all expectations and unfortunately 50 people were unable to join us because the lecture room was suitable for only 200 delegates!

As it was, a few members had to stay down the road in another hotel as the Hilton was fully booked with delegates and those 'unfortunate' few ended up in the same hotel as the English reserve rugby team!

Jo Tuckey did a splendid job organising the conference, especially in light of the challenge of accommodating us all.

The programme This was very comprehensive addressing physiological, psychosocial and environmental influences on upper limb function with a variety of different professionals presenting their perspectives.

A lot of careful thought had gone into the planning as each speaker made reference to other lectures and unnecessary repetition was avoided.

On Day 1, the conference started with two lectures centering on the complexity of biomechanics and motor control followed by lectures on the role of vision, cognition and pain on reaching and manipulation.

On Day 2, the focus was on clinical reasoning and treatment intervention. There were a range of lectures covering dynamic stability of the shoulder, management of tone and movement patterns, proprioception, analysis of washing and dressing, management of the subluxed shoulder and finally an excellent summary by Jill Dawson on 'Why do arms take so long to recover?'

Although unnecessary repetition was avoided there was a common message being shared by the lecturers acknowledging the vast and complex nature of upper limb function and the need to provide meaningful and frequent opportunities for patients to become engaged and motivated in using their arms in task specific training.

Both Dr Margaret Mayston and Dr Jon Marsden talked about the complexity of the connectivity of circuits and their influence on function, highlighting the essential role of the corticospinal system for independence and synchronised activity and how this is task driven.

Steven Hodgson, Jacqui Clark and Alex Horley all talked about the importance of alignment in dynamic stability and how changes in muscle architecture with disuse, misuse and immobilisation adversly affect movement and upper limb activity.

Catherine Cornell cited a lot of evidence about the efficacy of therapy and that the site of a lesion will effect outcome. She also stressed the importance of arm activity to patients' sense of well-being, as did other speakers who emphasised how central arm function is to social and cultural interaction and independence.

Lester Jones provided evidence on how the stress of losing independence can increase the perception of pain and he emphasised the importance of achieving attainable goals.

Dr Paulette van Vliet broke down the cognitive components required in reach to grasp and suggested this knowledge could be applied to treatment strategies such as improving force production, temporal control, initial hand position and using bilateral hand activities with specific patients.

Dr Jill Ramsey highlighted the role of the upper limb in weight-bearing activities and the evidence for improving proprioception through improved muscle strength and control.

It was good to hear from the occupational therapists viewpoint too as both Sue Stephenson and Jill Dawson talked about how motivating function can be and that opportunity, repetition and often necessity can be used to optimise recovery.

We also heard from Helen Hill and Susan Coote who presented their research papers and added further evidence for practice on recovery.

Social aspect As usual at these events you end up meeting 'old' colleagues and friends, many of whom you may not have seen for years. The noise of all the chatter and laughter seems to become louder as the conference progresses and all credit to the ACPIN committee for keeping the programme to time as coffee, tea and lunch breaks provide opportunities to catch up with news!

The gala dinner on Friday night is always sociable as well as entertaining as some tables get carried away having their fun! This year there was an impromptu kareoke session at the end of dinner which extended into the bar late into the night! What talent there is!

Summary The conference proved to be very stimulating and the lectures were often refreshingly presented making learning more memorable. It was good to hear from 'new' speakers and to have the opportunity to listen to other professionals on this very complex area looking at the upper limb and its interdependence with the rest of the body.

EVALUATION FORMS

Ros Wade

A big thank you to all who completed the evaluation forms (160 out of 210 delegates); the information will be collated and fed back to the national committee. A brief overview indicated that most delegates found the conference extremely stimulating and appropriate to their requirements and expectations. However, the feedback also highlighted that a number of delegates felt one or two of the talks were pitched 'too high' and a couple of the talks 'too low'. These comments will be reviewed by the committee in considering future speakers and the content/outline for the lectures ACPIN require.

Other comments included:

- ***too many people in the room*** – ACPIN accept that this conference proved more popular than anticipated – in early January we only had about 35 delegates paid up, although in the end there were over 50 on a waiting list. There is a dilemma between having facilities (at a reasonable cost) which enhance the purpose of a residential conference against a 'lecture-style' auditorium. We will be considering carefully future locations, but for ACPIN the cost will always dictate certain decisions.
- ***possibility of workshops*** –not possible with this number of delegates.
- ***copies of all the powerpoint presentations*** – this was a point raised by many delegates, despite each speaker submitting abstracts and a reference list. Although this may seem a good idea, as an 'organiser', I would like to point out that it takes a considerable time to collate eleven abstracts and biographical details, a few of which were only finalised a week before the conference. All our speakers are exceptionally busy professionals and I do not think it is realistic to expect a copy of each presentation at this type of conference. In addition the cost of photocopying would be extreme, and the number of trees destroyed vast.
- ***a reading list prior to the conference*** – again, trying to get a list from each speaker and then forward it to each delegate would take an enormous amount of time. Photocopying would again be expensive, and email does take a great deal of time, and again a cost for the person doing it. All the ACPIN committee members are currently working and therefore we have a 'limited' amount of time for ACPIN duties – evenings and weekends are precious to us all.

All the comments made will be considered by the committee and, for example, at a smaller one day course with only a few delegates, full handouts may be possible. There are a number of new members on the committee and we wish them well with the future ACPIN events and thank you for your continued suggestions, feedback and support.

MOTIONS FOR THE ANNUAL REPRESENTATIVES CONFERENCE (ARC)

Nicola Hancock
Public Relations Officer

This year's ARC is to be held at the Holiday Inn, Birmingham, on Thursday 15th to Saturday 17th May 2003. As ever the public relations sub-group of ACPIN have been considering, and then writing, proposals suggested for ARC. This year two motions have been submitted to the CSP for consideration and both have been accepted by the Agenda Committee. We are delighted that ACPIN will be well represented this year and look forward to the outcome of the meeting in May.

Motion One

This conference requests that the CSP should, alongside partner organisations, ask the media to launch a campaign to facilitate improvement in public awareness of cerebro-vascular disease with respect to primary and secondary prevention, outcomes and potential for positive rehabilitation via physiotherapy, since public awareness of stroke as a cerebral event remains poor.

Explanatory note ACPIN members working with stroke patients and carers find that knowledge of stroke, its causes, pathology, outcomes and rehabilitation potential remains poor. The CSP must work with other relevant organisations to encourage a media campaign to improve understanding of stroke through television and radio advertising, thus aiding primary and secondary prevention as well as assisting patients and carers with coping with the onslaught of stroke and its potential outcomes. The campaign should be extended to medical bodies to develop a consensus on the name of stroke eg brain attack as a considerable number of different terms are still used. *Note*: This motion was submitted in 2002 but was moved to the secondary agenda and did not reach the debate. We have therefore decided to re-word and re-submit it.

Motion Two

ACPIN demands that the CSP should immediately lobby Trust Executives to provide sufficient resources for appropriate seating for all patients with neurological impairment, in light of the serious personal and economic implications of inadequate seating for this client group.

Explanatory note It has come to the attention of ACPIN that resource for the provision of appropriate seating for neurological patients varies considerably across the UK. It is essential that all patients have access to prompt professional assessment, provision and regular reviews. Providing a thorough, consistent service would most certainly significantly reduce secondary complications of poor positioning and their obvious ensuing financial implications. Those who have already had their lives devastated by neurological impairment and their carers deserve appropriate seating as a fundamental part of the rehabilitation process.

THE NEUROLOGICAL ALLIANCE

ACPIN have been interested in supporting The Neurological Alliance and had a representative at a recent meeting. We feel that this is a useful forum that will benefit the clients that we see, and for us to assist in highlighting important areas for development.

The Neurological Alliance is a collaborative forum of a wide range of neurological charities with the main objective of improving the quality of life for people in the UK affected by a neurological condition.

Our aims are to:

- Raise awareness of neurological conditions and the impact on individuals, their families, carers and society
- Inform and influence policy makers about the needs of people with neurological conditions and their carers
- Secure the highest standards of service and improved care for people with neurological conditions.
- Promote research and the dissemination of information about neurological conditions.

We are concerned about:

- The low priority given to addressing the needs of the very large and diverse group of people affected by neurological conditions
- The need for nationally accepted standards of care
- Ensuring that the particular needs of carers are addressed
- Fragmentation and lack of co-ordination between hospital and community services, health and social care, statutory and voluntary sector organisations
- Raising awareness amongst health and social care and other professionals about the physical, social and psychological impact of neurological conditions
- Ensuring that those affected are involved in the management of their condition
- Promoting research which focuses on the needs and concerns of people with neurological conditions and the organisations that represent them.

The Neurological Alliance:

- Consults widely to identify issues and concerns
- Influences policy by communicating and working with central and local government and other decision-makers and opinion formers
- Encourages close working between health and social care organisations and professionals and voluntary organisations
- Publishes briefings, reports and other documents
- Educates our members and others through conferences and seminars
- Acts as a forum for collaborative action to benefit people with a neurological condition, their families and carers.

The organisation

The Neurological Alliance is large in scope - we have 50 organisations in membership of the alliance, but small in entity with only four part-time staff. Our links and influence extend beyond the member organisations in a number of ways - through the increasing number of regional neurological alliances, through our more formalised relationships with a wide range of professional associations and through new work to support the development of the National Service Framework (NSF).

National Service Framework (NSF) for long-term conditions

The Neurological Alliance has been awarded a grant for the next three years to employ a project officer to work with member organisations and others to ensure that patient and carer views and concerns are fed into the development of the NSF. The Minister said when announcing the scope of the NSF in June that users and carers should be central to the newly designed services developed through the NSF. We intend that this will be a focus of our work for the next few years.

We have established an NSF Interest Group within the Neurological Alliance which includes many member organisations. This Group meets three to four times a year and has an email list. We will also be convening groups of service users and carers to consider proposals coming out of the External Reference Group (ERG) who are developing the NSF.

Standards of care

A group within the Neurological Alliance have fully revised the standards of care document originally published in the mid 1990s. The new version entitled *Levelling Up* was launched in May and has been very well received. We have a Standards of Care Project Officer, whose role is to promote and develop the standards of care document.

Future plans

Our key aims for the future are:

- *Improving standards of care* The Neurological Alliance presently has an unprecedented opportunity to pursue one of our main aims of securing higher quality standards of care for people with neurological conditions. Our key goal for 2002-4 will therefore focus on this area of activity. We aim to develop, implement and influence standards of care for people with neurological conditions. We will achieve this through:
  - Aiming to have maximum influence on, and involvement, in order to secure a useful National Service Framework
  - Influencing and informing politicians and other key policy makers
  - Defining and identifying high quality standards of care through the development and promotion of our own standards of care document
  - Developing the capacity of local regional alliances in order that they can facilitate the development of standards of care locally and ensure the implementation of the NSF.
- *IInfluencing the research agenda* In the longer term, we are also keen to look beyond the next two, or even ten, years and ensure that the research agenda secured for the future is pertinent to the needs of people with neurological conditions and is focused on their concerns and those of the organisations that represent them. We are concerned to promote the involvement of people with neurological conditions in shaping that agenda.

Publications from The Neurological Alliance

Levelling Up –Standards of care for people with a neurological condition (2002) £5.00 for individuals and members of the Neurological Alliance, £10.00 for organisations.

In Search of a Service – The experiences of people with neurological conditions (2001) £3.00 for individuals and members of the Neurological Alliance, £10.00 for organisations.

Regional neurological alliances – A guide for local branches and groups of neurological charities (2001) FREE.

The Neurological Alliance
PO Box 36731
London
SW9 6WY
t 020 7793 5907
f 020 7793 5939
e info@neurologicalalliance.org.uk
www neurologicalalliance.org.uk

NATIONAL MULTI-PROFESSIONAL CLINICAL GUIDELINES

How to get involved in national multi-professional clinical guidelines – the cutting edge of evidence based practice

Ralph Hammond Professional Adviser, CSP Research and Clinical Effectiveness Unit, hammondr@csp.org.uk

Introduction

The National Institute for Clinical Excellence (NICE) organises the development of national multi-professional guidelines. Clinical guidelines form part of the evidence base from which practitioners work to aid decisions about interventions for specific clinical circumstances. The Government expects these guidelines to be implemented into clinical practice and has founded the Commission for Health Improvement as one mechanism for overseeing this.

The profession must provide a considered perspective of the care physiotherapists offer for each guideline, to ensure physiotherapy is reflected appropriately. To do this *the Society depends on its members*. The Association of Chartered Physiotherapists in Neurology (ACPIN) is working with the CSP to assist with those guidelines that are relevant, and *needs your help*.

The aim of this article is to describe in brief the process of development of a NICE guideline and encourage you to participate.

Background

NICE organises the development of national multi-professional guidelines. The Department of Health and National Assembly for Wales determine the topics. Clinical guide-lines form part of the evidence base from which practitioners work and are 'systematically developed statements to assist practitioner and patient decisions about appropriate health-care for specific clinical circumstances'.[1]

NICE announces its work programme on its web site, and invites national organisations to sign up as stakeholders. The CSP does this on behalf of the profession for topics of relevance to physiotherapists. Several guidelines are currently being developed of particular interest to members of ACPIN:

- Service guidance for tumours of the brain and central nervous system
- Clinical guideline for the management of Parkinson's Disease
- Clinical guidance on wound care management, including the prevention of skin breakdown

Since NICE was established, the Society has registered with 33 guidelines. This constitutes a massive work commitment by the Society on behalf of the profession.

Listed below are key web sites for NICE guideline development showing how topics are selected, how guidelines are developed, which guidelines are being developed and how the CSP is involved.

- For information about how topics are selected, go to: **www.doh.gov.uk/nice/consultation2002**
- For more information about the process of guideline development, go to: **www.nice.org.uk/cat.asp?c=22334**
- For a list of all the guidelines NICE is developing, go to: **www.nice.org.uk/catrows.asp?c=20055**
- For further information about the Society's involvement go to: **www.csp.org.uk/effectivepractice/guidelines**

Guidelines typically take about two years to develop, and are developed through an explicit process. This development process is the same for each guideline and is in four stages. This is useful because it helps ensure the profession can be prepared at the right time. *Appendix 1* is a flowchart describing the relationship between NICE, the CSP and ACPIN for timing in the development of a NICE guideline.

The profession has the opportunity for consultation on topics where it feels physiotherapy is a relevant stakeholder. The key stages for consultation are:

1. Deciding the scope of the guideline
2. Submitting evidence
3. Commenting on the two draft versions of the guideline

At each stage the Society will depend on the advice of its members for physiotherapy knowledge, clinical experience and expertise.

Involvement in the development of NICE guidelines is *an excellent learning opportunity* for physiotherapists. It is the chance to learn how research evidence is appraised and turned into meaningful clinical recommendations, how multi-professional documents are produced and how evidence based practice might really work. Participation in a large-scale national development at the cutting edge of clinical practice is exciting and stimulating.

Deadlines are tight so communication is electronic. All documents received from NICE are via email, and any consultation between physiotherapists and the CSP will be via email, this is the best method for ensuring timely information is circulated.

Stage 1: Scope

This is a key stage where clinicians can help the profession. It involves consultation on what is to be included and excluded in the guideline. NICE emails a copy of the draft 'scope' to the named person for each stake-holder, ie Ralph Hammond at the CSP, who has four weeks to respond. The 'scope' is short, about five sides long.

How you can help Read through the 'scope' document and decide if it includes physiotherapy/rehabilitation appropriately. If it does, is the nature of involvement correct? If it doesn't include physiotherapy/rehabilitation, do you think it should? If so, why, if not, why not? *This should take about 30 minutes.*

Stage 2: evidence submission

This vital stage doesn't involve reading anything! We have four weeks to submit information to assist in the development of the recommendations.

How you can help There are two key areas where members can assist:

- Firstly by suggesting what key clinical questions relating to physiotherapy need to be answered by the guideline. Relate any questions to the 'scope'. Tell us what interventions /modalities need to be considered.
- Secondly, by alerting the Society to unpublished reports or consensus statements (including any printed in a CIG newsletter). NICE organises an extensive search of electronic databases where most medical information is stored. However there may be unpublished evidence or information not on electronic databases. *The Society needs help in identifying this.*

For many NICE topics, physiotherapists are part of the team who help in the management of patients with these diagnoses or conditions, rather than curing the condition per se. The Society needs clinicians (of all grades and experience) to offer observations on the problems associated with each guideline topic.

For some conditions there may be concern that there is *insufficient evidence* for the effectiveness of physiotherapy intervention. This shouldn't deter members from getting involved. If you believe you have an impact with the patient group, then the profession must address this by informing the guideline working party. If necessary, consensus statements can be developed, this is preferable to no evidence at all.

Stage 3: first draft

This is attractive to read, but be warned – it will be a long document (typical documents are between 100 and 500 pages A4 size). This is the stage when researchers and

The Chartered Society of Physiotherapy
Annual Congress and exhibition
defining practice

Friday October 17 – Sunday October 19 2003
International Convention Centre, Birmingham

ACPIN will be hosting a programme at this years' Congress focussing on the developments in the treatment and management of progressive neurological disorders.

We are pleased to welcome many eminent speakers, including Dr Diane Playford who will open the programme by considering the question 'Why treat patients with progressive neurological disorders: Where is the potential?' Professor Derick Wade will discuss the evaluation of patients with progressive disorders and Professor Ray Tallis will consider the ethical dilemmas of treating this patient group. Dr Francis will look at the controversy of beta interferon and cannabis in Multiple Sclerosis, and Dr Jenny Freeman will consider the physiotherapeutic management.

Professor Ann Ashburn will present the evidence for the treatment of Parkinson's disease. Dr Martin Turner will give a review of a co-ordinated approach to motor neurone disease and postural management for patients with progressive disorders.

ACPIN is one of nine special interest groups who will have programmes running concurrently. Following the success of the fringe meeting last year, ACPIN are currently making arrangements for a similar meeting for an open debate on an appropriate 'hot' topic to be arranged nearer the time.

As in previous years we look forward to an excellent trade exhibition, and this year's keynote lecture from Tanni Grey-Thompson, Britain's most successful wheelchair athelete.

Look out for the booking forms in *Frontline.*

NB: When completing your application forms *please tick clearly the ACPIN CIG box*. ACPIN recieve a capitation fee for all members who indicate on the form their membership of ACPIN. This income is *essential* for ACPIN to be able to host programmes at these events.

Further information will be available shortly on the ACPIN website and the full programme is on the CSP website.

academics may be best able to help, as it will involve considering if the best available evidence has been included. There are four weeks to respond.

How you can help You don't need to read it all: consider:

- Is physiotherapy/rehabilitation involved? If yes, is it in sufficient depth?
- Is the wording correct?
- Are there any inconsistencies in interpretation of the evidence?
- What is the practical value of the guideline?

Stage 4: final draft

This is the final opportunity to comment on the guideline, be warned – it is the longest document (typical documents are 500 pages A4 size). There are four weeks to respond.

How you can help At this late stage NICE will only accept comments on major omissions or mistakes based on our previous submissions. You don't need to read it all; the process of development of the guideline is not for consultation. Consider:

- Is physiotherapy rehabilitation involved? Yes/no
- If yes, is it in sufficient depth? Yes/no
- Is the wording correct?
- Are there any inconsistencies in interpretation of the evidence?
- What is the practical value of the guideline?

For this final consultation stage you can email NICE directly; it is an open consultation, open to the public. However, remember it is too late to raise new issues. It is possibly easier and preferable to send in any comments to the Society, where they will be collated and submitted as one response. NICE prefers this.

Remember

NICE imposes strict deadlines on consultation. Information that misses a deadline will not be included in the consultation. To ensure all voices within the profession have the chance to input to the Society's response, it is vital to be organised and ready to respond, rather than reacting hastily when the invitation arrives.

Conclusion

If the Society does not respond in a timely and informed manner, the profession runs the risk of physiotherapy interventions not being included in guidelines. The aim of NICE guidelines is to have a real impact on what services and treatments are commissioned and provided: *get involved or the profession will miss out.*

Members are encouraged to contact the CSP if they wish to be involved in helping the CSP construct responses at the key stages of consultation. Please contact Ralph Hammond, Professional Adviser, hammondr@csp.org.uk.

1 Field MJ, Lohr KN (1992) *Guidelines for Clinical Practice: From Development to Use* Washington DC: National Academy Press.

FLOWCHART TO IDENTIFY THE TIMING IN DEVELOPMENT OF A NICE GUIDELINE

Time	NICE	CSP	ACPIN
	publishes programme		
		emails this to ACPIN	
6 weeks later		registers as stakeholder with NICE	
			identifies itself to CSP
		searches databases for grey literature	identifies individuals to liaise with CSP via email
	consults on scope	emails this to ***identified*** CI/OGs	search for grey literature and keywords
4 weeks later		collates replies and writes response (cc to CI/OGs)	considers scope and emails reply to CSP
	publishes final scope		
	GDG requests evidence submissions	forward this to ***identified*** CI/OGs	collates evidence and emails to CSP
4 weeks later		collates all evidence and submits via email (cc to CI/OGs)	
	GDG produces first draft	emails this to CI/OGs	emails response to CSP
4 weeks later		collates replies and writes response (cc to CI/OGs)	
	publishes final draft on web site	alerts CI/OGs	can respond to NICE
2 years later	publishes guideline	alerts CI/OGs, articles for *Frontline*, and CSP web site	disseminates and implements guideline

Appendix 1

Key GDG *Guideline Development Group (commissioned by NICE)*
CI/OG *CSP clinical interest and occupational groups*

LITERATURE SEARCHING: A USER GUIDE

Caroline Miller Senior Information Officer, Library & Information Services, Chartered Society of Physiotherapy

Literature searching is becoming increasingly commonplace for physiotherapists, whether it is for finding out about a particular clinical condition, keeping up to date with literature for continuing professional development purposes or to find evidence for the effectiveness for a particular physiotherapeutic intervention.

It can be difficult to know where to start searching for information, what sources to use, how to use electronic databases and how to manage the information retrieved. A new guide to literature searching has been produced by the CSP Library & Information Services that is aimed at providing advice on this topic. The guide covers what literature searching is, reasons for searching the literature, sources to use including libraries, electronic databases, the web, journals, books and grey literature, how to search for evidence, how to manage information and referencing.

The guide is available in full text on the CSP Web site **www.csp.org.uk/libraryandinformation/library/publications.cfm?id=258**

The guide can also be obtained in print format costing £10 per copy and is available from:

Terry Grant
Clerical Assistant
Research & Clinical
Effectiveness Unit
Chartered Society of Physiotherapy
14 Bedford Row
London WC1R 4ED

by sending a cheque made payable to the *Chartered Society of Physiotherapy*.

Research forum

Mary Cramp
ACPIN Honorary Research Officer

This issue we have our two regular features, STATS NOTE and WEBSOURCE and an introduction to the process of obtaining ethical approval. In addition, as we get underway with our research survey for 2003, we report back on the research survey of 2002. The ACPIN research bursary scheme is now running and is available to members of at least two years standing. The next submission deadline is the 31st September 2003. Details can be obtained from:

Mary Cramp
School of Health and Biosciences
University of East London
Romford Road
Stratford
London E15 4LZ
or email mary.cramp@talk21.com

ETHICS – A BEGINNERS GUIDE

Sarah Tyson PhD, MCSP
Clinical Specialist Research Physiotherapist, Pennine Acute NHS Trust and Centre for Rehabilitation Science, University of Manchester

One of the key stages in doing research is obtaining ethical approval. Each area has an ethics committee who provide independent advice to research subjects (participants), researchers and anyone else who is involved in the research process. They are independent and not part of the NHS, civil service etc. They consist of lay people as well as health care professionals. The ethics committees' purpose is to protect the dignity, rights, safety and well-being of all actual or potential research participants. Any research that is done in the NHS needs to obtain ethical approval before it can begin. The way in which ethics committees work was overhauled in 2002 as part of the NHS Research Governance Framework (www.doh.gov.uk/research) and some change is still on-going. The process I will describe below is correct as of December 2002.

You need ethics approval for any research that involves: NHS patients (past, present or future); records of NHS patients; use of NHS premises or facilities (including staff) and student research if it involves NHS patients, facilities etc. You do not need ethics approval for audit, service development, data collected as part of everyday clinical practice.

How do I get ethics approval?

Every 'locality' has a local research ethics committee (LREC). These are basically the old NHS trust areas. To find your nearest LREC, look on this website: www.corec.org.uk or contact the R&D department of your trust/PCT. Every trust should have a R&D department/committee/group so there should be a phone number in the directory! The LREC will supply a form to be completed. The form is then submitted to the ethics committee who will consider the ethical implications of the study and if they think there are no ethical conflicts, they will approve it to take place. Once the ethics committee has considered a study, there are often some points that need clarification or revision. So it is not unusual to receive requests for some changes, although for physiotherapy research these are usually quite minor. Once you have obtained ethics approval, you then need approval from the local R&D deptartment before you can actually start data collection. Most LRECs (and sometimes the R&D deptartment as well) will also require a report when the study is complete and maybe interim reports (if the study continues for a long time).

What does the ethics form involve?

There are plans for a standard ethics form for the whole of the NHS but this has not yet come into practice (December 2002). At present, you need to obtain a local ethics form from your LREC. The ethics form tries to cover every type of research that may ask for approval, so it is inevitable that much of it will not apply to any individual study. Also, many of the questions apply to trials which have the potential to be harmful or unpleasant to the participants like drug trials or ones involving medical investigations such as X-rays or biopsies.

The ethics form needs to give the ethics committee members (which includes lay people) enough information to know what you intend to do, why you want to do it and how you are going to do it. The application form will also include guidance about how to complete the form. These are usually comprehensive and relevant. Follow them carefully!

In the application form you will be asked for (amongst other things):

- A proposal which gives an outline of why the research is needed and what research questions it will answer, what you will do, to whom and what tests will be done
- A protocol showing what interventions (if appropriate) and tests will be done when and to whom
- A consent form and details of how consent will be obtained. Many ethics committees have a standard consent form which they want you to use, which saves you designing your own
- A participant information sheet that gives participants all the information they need to decide whether they wish to take part in the study. It will include why the research is needed, what they will be asked to do, what tests will be done on them etc. Who to contact for more information, if there is a problem etc.

The principle of informed consent is particularly important to the ethics committee. They need to be confident that participants will know what they are agreeing to if they consent to take part in the study. Therefore it is important that the information sheet is understandable to the layman and gives all the information the participant may need including any risks, side effects or potential negative aspects of the study. The ethics committee often has sample information sheets to give some guidance on designing the sheet, which can be very helpful.

The ethics committee will also give a detailed look at how the participants are recruited to ensure they are not put under any pressure. They will want to know how suitable participants are identified, how they are approached, what information is given and when, whether they have time to think about it and whether there are any conflict of interests between researcher and clinicians. These things are rarely a big issue for physiotherapy research but they can be in medical research and we all go through the same process. It is often just a matter of showing that these issues have been considered and are not a problem.

It is well worth putting yourself out to ensure that the form is completed correctly. If it is not, it will be returned. Most committees only sit every month or every two months and so there can be a long delay if the form is not completed properly.

Every ethics committee has a chair and administrator, the larger LREC will also have other support staff. The LREC administrator/support staff are (in my experience) very knowledgeable and helpful. They also know about the likes/dislikes/quirks and hobby-horses of the committee that you are submitting to, so they are very good people to get in contact with for help in completing the form.

Getting ethics approval can be time consuming – it usually takes two-plus months to get approval. Part of the reason the process is lengthy is that ethics committees usually only sit once a month or every two months (depending on how much research is going on in the area). It is therefore important to make sure you don't miss a deadline. Contact the LREC officer to find out when the committee sits and the deadlines for submissions early on. Getting ethics approval can be frustrating, especially the first time until you get the hang of the procedure and the form but it is an essential part of any research. Get help and advice from the LREC office and/or a local experienced researcher (not necessarily a physiotherapy researcher) before you submit the form. It is well worth getting a lay-person to read the information sheet before you submit it to see whether it makes sense to them and gives them the information they feel they would want if they participating.

What if the study involves more than one locality ie a multi-centre study?

If the study involves more than one research site within the same strategic health authority, you apply for ethics approval in the main locality (as above), when that has been approved you need to apply for locality approval in each of the other sites. There is a form to be completed – available from www.corec.org.uk, called the *Health Authority Locality Form*. This is usually a quick process when the locality considers whether there are any additional issues that apply to their locality which were not considered in the initial application.

If the research is a multicentre study involving research sites in more than one strategic health authority you need to obtain approval from a multicentre research ethics committee (MREC) rather than a local one. And then get locality approval from each individual site. The process and forms are essentially the same for MREC as Local ethics but it just goes to a different committee and inevitably multi-centre studies are more complex than single centre studies.

Tips for Pain-Free Ethics Approval

- Ethics approval is essential and often time consuming. Expect it to take at least two months (probably more) and include this in your time scales.
- Contact the LREC officer early on to find out the deadlines for submissions and work to them.
- Take care to complete the form correctly and completely. You will have to fit in with the ethics committee's system, not the other way around.
- Follow the guidance notes with the application form.
- Get the advice of the Local Ethics (LREC) Department early for advice and information.
- If possible get an experienced researcher to proof read the application before submission, or get their advice as you go along.
- Get a lay person to read the information sheet to ensure that it makes sense to a 'non-medical person'. It should be possible to explain anything in layman's language. The ethics committee will not accept that it is too complex or difficult to explain simply.
- Don't be surprised or upset if clarification or revisions are required. Although you have probably been thinking about the study for a long time and are very familiar with it, it may not be so obvious to outsiders.
- At the same time as applying for ethics approval, approach the local R&D office to find out what procedures are necessary to get R&D approval/registration. This is also required before data collection can start.
- Like most things, the first time is the worst! Once you are familiar with the process, the forms, the issues etc, it is easy.

10101010101010101010 STATS NOTE 10101010101010101010

Descriptives – The Cinderella of Statistics?

When glancing over the results of research reports, we tend to look at the graphs and want to know whether the results were significant or not. We often forget (or don't have time) to really consider the descriptives of the recorded measures. The question is what should we be looking at and why. In relation to descriptive statistics, there are two key factors: measures of central tendency (eg mean, mode etc) and measures of variation (standard deviation, range etc). The actual descriptive tests used will depend on the type of data but the underlying principles are similar. Measures of central tendency gives you the middle or most common score of a set of observations while measures of variation indicate the dispersion of the measurements. So if you want to know whether study participants are similar to patients you treat or what degree of change to expect with intervention, look at the descriptives. More often than not, you will find a lot more than you'd expect from a quick glance.

RESEARCH QUESTIONNAIRE 2002 REPORT

Research Subgroup

In 2001, the ACPIN national committee decided that the association needed to have a view of research and associated activities within the membership to be able to address issues related to government agendas and professional growth. So, in 2002, we asked members to complete a research survey attached to the membership form if they had been previously involved in research, currently involved in research or planning to be involved in research. The survey was divided into three main sections. Section 1 focused on subject, area and methodology of research. Section 2 looked at funding and post-graduate training of those currently involved in research and Section 3 asked those intending to get involved in research about timing, funding and general reason for their research. With the start of a new year, it seems an opportune time to feedback to you some of the findings of the survey.

302 questionnaires were returned and all questionnaires were processed and included even if sections were not fully completed. 175 people completed Section 1 where they marked as many items as applied to the research subject, area and methodology. Although primarily intended for those previously and currently involved in research, 49 potential researchers completed this section and are included in the analysis. *Figures 1* and *2* (overleaf) show the response to enquires about research subject and area. 36% of respondents were interested in stroke while 20% ticked the 'other' box. Subjects mentionned included brain injury (an omission on our part), cerebral palsy and issues regarding therapists. Intervention (46%) and service delivery (24%) were the most frequently occurring research areas.

RESEARCH SUBJECT

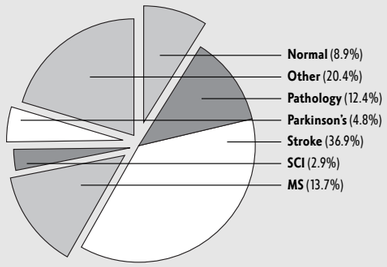

Figure 1

RESEARCH AREA

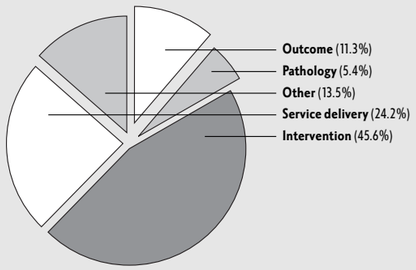

Figure 2

POSTGRADUATE QUALIFICATIONS OF CURRENTLY ACTIVE RESEARCHERS

		Funded research	Non-funded research
Registered for further degree	No	60%	55%
	MSc	23%	33%
	PhD	16%	5%
Hold a further degree	No	73%	72%
	MSc	18%	22%
	PhD	6%	3%

Table 1

Methodologies employed were more dispersed and as a proportion of the total number of responses ranged from 7 to 17%.

118 people completed Section 2 indicating that there were currently involved in research. 27 people also completed Section 3 (intending to get involved) but the majority had plans to start their research within six months. 70% of those currently involved in research were employed in the NHS and 54% were funded. 23% indicated that they were funded by charities; 29% were funded by other sources and the remainder were funded by their employer, NHS regional funds or research councils. 15 individuals were named fundholders suggesting that the majority were not directing the research. *Table 1* shows the postgraduate qualifications of those involved in either funded or unfunded research. Those who had or were working towards post-graduate qualifications were in the minority.

122 individuals registered that there were intending to get involved in research. The majority (83%) were working in the NHS. 28% intended to be active within six months, 23% within six to twelve months but 49% had a unknown timescale. For 30%, their research would be funded but the majority would be non-funded. The majority envisaged that they would do their research as part of work with 30% planning to do their research as part of an educational course.

As many of you already know, we are continuing this exercise in 2003 and plan to do so for at least another year. It is important for our professional practice that we see growth in research activity and capacity. Professor Tallis has already use for some of the results of the survey in relation to advancing multidisciplinary research in neurological rehabilitation.

Thank you for your time in completing the questionnaires and we will keep you informed about the outcome.

LITERATURE SEARCHING

- **BioMedNet**
  www.bmn.com
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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.

A A CLINICAL MODEL FOR THE ASSESSMENT OF POSTURE AND BALANCE IN PEOPLE WITH STROKE

SF Tyson and LH Desouza (2003)
Disability and Rehabilitation 25, no 3
pp120-126

Article reviewed by **Margaret Hewett** MA MCSP, East Sussex Hospitals NHS Trust

The study was undertaken at the Centre for Research and Rehabilitation Department of Health and Social Care, Brunel University, London, UK

Overview The article explores neurophysiotherapists' clinical reasoning around the assessment of posture and balance following stroke, in an attempt to arrive at a definitive measure. It is well referenced.

CRITICAL REVIEW

Abstract The abstract clearly exposes the content of the article via Purpose, Results and Conclusions. The key messages are there, but not in sufficient detail to deter the enthusiast from further enquiring search for more information.

Introduction This sets the scene with the need for physiotherapists to be more 'scientific' in their definition of the content of various approaches to physiotherapy for stroke patients. This includes the Bobath approach, which continues to have different meanings for clinical skills between physiotherapists. This article however focusses on posture and balance.

Method This section is clearly subdivided into Study Design Participants, Procedure and Analysis. The focus-group method was chosen and senior neurophysiotherapists, with experience of working with stroke patients, undertaking the MSc in Neurological Rehabilitation were selected. Participants observed balance and posture of patients in differing postural sets (via photographs) and brain-storming ideas were collated on a flip chart, by the facilitator. The information collected was 'translated' into a word-processing package for analysis. Internal and external validity was established

Results The contribution from the six groups is discussed, The assessment was subdivided into 'What can the patient do?', in terms of completing increasingly complex balance tasks to 'How do they do it?' focussing on alignment and quality of movement to 'Why do they do it that way?', looking at possible causes eg alterations in tone, muscle shortening, compensations. The information gathered re assessment pointed towards functional ability and a direction for treatment/techniques.

Further detail is included about the components of assessment ie what the patient is being asked to do, what the physiotherapist is doing or looking for and the recording of impairments. The description and flow charts are very clear about what is being observed/analysed. Some of this information might equally have been included under 'Method'.

Discussion Reasons for not using the 'true' focus-group method were put forward ie that facts, not opinions were sought. Issues of validity, reliability and participant selection were covered. The method described could be applied to other elements of assessment/practice.

Conclusion The information gathered can be used to shape future relevant outcome measures

Comment This qualitative piece of work is a sound starting point to 'un-picking' the plethora of facts that combine to underpin a physiotherapist's clinical reasoning re: assesment of balance and posture following stroke. It is easy to read but I found myself feeling impatient to arrive at the point where the 'action' was taking place but obviously the preliminary 'scene setting' is necessary. We look forward to the progression of this work to the outcome measure stage and the dissemination into other elements of assessment/practice amongst neurophysiotherapists that can help us to quantify and describe what we do.

A DO PASSIVE STRETCHES MAINTAIN RANGE OF MOVEMENT?

A review of the literature

Articles reviewed by **Donald McLean**

Passive Stretches are commonly practised to maintain joint range and prevent contracture in people with reduced mobility (Frank et al 1984, Ada and Canning 1990, Steffan and Mollinger 1995, Halbertsma et al 1999, Harvey et al 2000). Historically they are undertaken by both physiotherapists and nursing staff, and have been an integral part of both their practices and taught from an early stage in their training. There is however a debate as to the actual value of the procedures, and the amount of time that need be spent to achieve the maintenance of the joint range.

There is much physiological base for the process involved in loosing passive range of motion (Ada and Canning, 1990). Studies on animals have provided information about the length associated changes in muscle with immobilisation (Frank et al 1984, Halbertsma et al 1999, Williams 1988). Muscles that are immobilised in shortened positions respond by loosing sarcomeres. This results in a shorter muscle adapted to it's new imposed length. Connective tissue in muscle also undergoes remodelling. The relative increase in muscle connective tissue that occurs as a result of immobilisation in the shortened position is suggested contributes to the stiffness seen in short muscle. This increase is thought to be more attributable to the length of muscle fibres than to the immobilisation. It has also been shown that immobility has an effect on joint stiffening (Frank et al 1984). Changes start occurring within the joints, fibro-fatty tissue proliferates and forms adhesions as it matures into scar tissue. Articular cartilage becomes attached to this tissue and begins to degrade. Chemical changes consistent with osteoarthrosis then show. Extra articular tissues such as ligaments also loose their mechanical properties.

A number of studies have been undertaken to try to accertain the amount of time a joint must be mobilised to prevent these changes. This ranges from 15 seconds, repeated four times in athletes (Roberts and Wilson 1999) to 6 hours in immobile patients with cerebral palsy (Tardieu et al 1988). There is no consensus on this at all.

There is debate about the lasting effect of stretching on muscle and joint range in a range that encompasses fit athletes to immobile patients. One study on fit young athletes suggest that the acute effects of repeated passive stretching are negligible. However a very

methodologically sound paper by Harvey et al (2000) looked at patients in two rehabilitation units who had spinal cord injury. They had stretches carried out for 30 minutes a day, five to seven days a week for four weeks. They acted as their own control, where one ankle was stretched and the other was not. The results showed no difference between the two, and the authors questioned whether therapists could now be confident that stretches can prevent contracture. Other interesting results were that contrary to expectations, patients with existing contractures did not loose any range of movement with or without stretching, and passive stretches had no effect on reducing contractures already present. Animal experimentation by Williams (1988) showed that 15 minutes of passive stretch daily did not prevent reduction in muscle length, with the associated loss in joint range of movement that accompanies this. Steffan and Mollinger (1995) looked at using a spring loaded passive joint mobiliser on nursing home residents with more than ten degrees of knee flexion contracture. They were passively stretched on the mobiliser for three hours daily. Out of the 28 patients in the study, only one showed any increase in their range of movement, one patient similarly lost range of movement.

Discussion From the literature there seems to be little evidence to support the use of passive stretches (Ada and Canning 1990, Harvey et al 2000, Halbertsma et al 1999). Only one article was reviewed that showed an improvement in range from passive movements (Tardieu et al 1988), and here the stretches were done for a much longer period of time than would ever be practised by therapists, ie from six hours upwards. This study was also done on a very small sample of six patients.

There seems to be no doubt that completely immobilised joints will show physiological change towards contracture (Frank et al 1984, Williams, 1988). However, none of the studies looked at the effect that the process of moving and handling has on the patient perceived as being immobile. For instance all patients will be moved in the process of maintaining their personal hygiene, this could well have an effect in the maintenance of their joint range. The work by Harvey et al (2000) showed no loss in range of movement in either ankle, whether passively stretched or not, suggesting something other than passive movements must be helping maintain range of movement. Therefore there is perhaps maintenance of range of motion from patients being moved about as part of their ongoing care, and the effect of very limited input from specific passive movements is negated by this.

There is without doubt a psychological benefit from physical administration of passive movements (Wilkinson 2001). Whether this is best use of expensive therapeutic time is debatable, especially when considered alongside questionable physical change. However, patients will be very reluctant to forfeit an input that to them is having a perceived benefit, no matter that the evidence for physical benefit is scant. How we demonstrate this to patients who receive ongoing passive stretch is problematic and needs to be handled with sensitivity.

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B NEUROLOGICAL PHYSIOTHERAPY – A PROBLEM SOLVING APPROACH

Second edition
Edited by Susan Edwards
Churchill Livingstone 2002.

Book reviewed by **Jo Tuckey** MCSP

The second edition of this popular textbook has been considerably revised and updated. It remains a clinically orientated text which is aimed at all physiotherapists working in neurology both students and practitioners.

1. Problem solving in neurological physiotherapy – setting the scene *M Mayston*
This excellent opening chapter provides some background to the development of approaches to neurological physiotherapy. It describes several models of motor control including neurophysiological, systems/distributed, engineering, biomechanical and hierarchical models describing implications of these for the therapist. Some aspects of the Bobath approach are clarified, such as tone, relevance of inhibitory techniques, postural control, compensation and associated reactions. Finally it emphasizes the need to consider the nature of a movement disorder, both the neural and non neural factors and skill learning including neuro plasticity in a problem solving approach to physiotherapy.

2. Assessment, outcome measurement and goal setting in physiotherapy practice *J Freeman*
Aspects of assessment, and the importance of reassessment are covered clearly and comprehensively. Interpreting findings, formulating a problem list, developing a treatment plan and documentation are included. The section on outcome measurement does not attempt to describe specific measurements in detail, but highlights the general principles including the purpose of evaluation, selecting relevant outcomes and appropriate measures. There is a clear and well referenced section on the general principles of goal setting.

3. An analysis of normal movement as the basis for the development of treatment techniques *S Edwards*
As in the first edition four main areas are covered in this chapter: features of normal movement, an approach to the analysis of posture and movement, analysis of specific positions and analysis of movement sequences. Of particular note is the section describing the nerve -muscle interaction in the features of normal movement which has been fully updated and replaces the previous section on biomechanical properties of muscles.

4. Neuropsychological problems and solutions *D Langdon*
Ten areas of cognitive functioning are described including general intellectual and executive functioning, memory and language function, attention, visual perception, spatial processing, praxis, insight and emotional distress. For each area there is a brief description of measurements devised to delineate the deficit, followed by clinical observations and therapeutic problems. Finally some basic treatment strategies in relation to the deficit are discussed.

5. Abnormal tone and movement as a result of neurological impairment: considerations for treatment *S Edwards*
The pathophysiology and well referenced treatment and management of the more common types of motor impairments resulting from nervous system damage are discussed in this chapter. Impairments covered include spasticity and the upper motor neurone syndrome (which has been fully revised since Edition 1), ataxia, rigidity, dystonia and chorea and athetosis.

6. General principles of treatment *P Carter and S Edwards*
With an emphasis on early physiotherapy intervention, when patients are usually hospitalized, the principles of treatment are described for acute and chronic disorders. The first section on management of respiratory dysfunction has been fully revised with increased emphasis on physiotherapy intervention. The second section on management of neurological dysfunction covers principles of positioning as well as principles of movement of all body areas. Importantly it takes heed of manual handling considerations.

7. Drug treatment of neurological disability *A Thompson*
This new chapter to the second edition focuses on the drug treatment of movement related symptoms, including the treatment of spasticity, ataxia and extrapyramidal disorders.

8. Case Histories *S Edwards*
Four case histories are described and the problems, goals and treatment progression are clearly discussed for each case.

9. Posture management and special seating *P Pope*
This chapter is concerned with the analysis of problems associated with posture in sitting and the principles underlying their resolution. It focuses on biomechanics of the seated posture, assessment, specific problem solving and the art of compromise. Customized seating and sit to stand wheelchairs are discussed.

10. Splinting and the use of orthoses in the management of patients with neurological disorders *P Charlton and S Edwards*
This chapter provides an updated, comprehensive summary of a range of commonly used orthoses and splints.There is a greatly expanded section on splinting and casting and the practical application for both lower and upper limbs.

11. Longer term management for patients with residual or progressive disability *S Edwards*
Subject areas discussed include non-progressive impairments such as vegetative state and cerebral palsy in adulthood, as well as progressive disorders including multiple sclerosis and hereditary motor and sensory polyneuropathy. For each subject there is a description of the condition followed by physiotherapy intervention.

12. The way forward *C Partridge*
This concluding chapter puts neurological physiotherapy in the wider context of the delivery of health services. It discusses some of the broader issues that impinge on the provision of treatment for neurological patients including competition for financial resources, the need for evidence based practice and research and the difficulties surrounding these areas. Most importantly, it sets the challenge for clinicians and researchers working in neurophysiotherapy to improve the treatment and management that can be offered to neurologically impaired patients.

Overall this second edition provides an extremely comprehensive summary of present day neurological physiotherapy. It is a very well referenced text although where there is no literature to support current practice it is clearly stated and the description of physiotherapy is based on the author's clinical experience. This second edition, which has clearly been thoroughly revised, is well worth a place on any neurophysiotherapist's bookshelf.

C DESCRIBING A ROSE WITH A RULER

A study day on outcome measurement in neurological physiotherapy.
5th December 2002, Ipswich Hospital
Tutor: Martin Watson, Senior Lecturer University of East Anglia

Course review by **Jennifer Young** MCSP SRP ACPIN East Anglia

'Describing a rose with a ruler', was a study day on outcome measurement in neurological physiotherapy. This was the title of an interesting, fun and thought-provoking day organised by East Anglican ACPIN.

The overall aim of the day was to increase delegates awareness of outcome measurement issues, and to explore the strengths and weaknesses of the outcome measures currently being used in the region.

The morning session focused on the general principles related to outcome measurement. It began with a quick refresher as to what measurement actually is and progressed to discussion about why to measure, how to measure and revision of the different levels of measurement, namely nominal, ordinal ratio and interval. This session also looked at the issues of additivity, reliability, validity, sensitivity and bias and how they affect the measurement we do.

The afternoon session was based around the results of a survey conducted by the ACPIN committee in preparation for the study day. It focussed specifically on clinical areas and covered tone, associated reactions, gait, quality of movement and life, balance and the upper limb. This proved to be a very useful session as delegates were able to discuss and exchange ideas about outcomes they were currently using and Martin was able to provide the evidence to support or negate their usefulness.

Overall a very useful and worthwhile day. The study day comes recommended and a follow up course has been suggested.

ACPIN RESIDENTIAL CONFERENCE 2003

MOVEMENT DYSFUNCTION IN THE UPPER LIMB

can we manage it?

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A conference to enhance our understanding of upper limb deficits and give insight into treatment and management approaches

Abstracts and biographies

INTRODUCTION TO THE UPPER LIMB LECTURE 1

Anatomy of the shoulder girdle and upper limb

Stephen Hodgson Sheffield Hallam University

The incidence of shoulder dysfunction in people over the age of 65 is between 26-34% (Chakravaryt and Webley 1993, Chard et al 1991)) and in patients suffering a CVA the reported shoulder pain within the first year is probably over 70% (Roy et al). Thus, most physiotherapists will experience patients complaining of shoulder problems and the basis to understanding the dysfunction is anatomical knowledge and its clinical application.

The shoulder is a highly complex series of joints, muscles and ligaments that allow the upper limb to perform complex and integrated functions. Stability of the glenohumeral joint is maintained by several important mechanisms: capsular restraints (Lippitt and Matsen 1992), rotator cuff muscles (Howell at al 1986) ,dynamic control of the scapula (Mottram 1995), shape of articular surfaces (Wilk et al 1997), glenoid labrum (Howell and Galinat 1989) and negative pressure (Gibb et al 1989) within the joint. Recent evidence has exploded several of the 'myths' surrounding shoulder form and function. For example, the commonly held belief that the supraspinatus muscle is an initiator of abduction is incorrect; the entire rotator cuff contributes to elevation of the arm (Sharkey et al 1994).

The lecture will examine glenohumeral anatomy and the factors that influence its function-both physiologically and in a pathological state. Using recent evidence, it is hoped to review anatomical knowledge and to develop a greater understanding of shoulder dysfunction presenting in neurological patients, therefore improving clinical management of these patients.

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Linzie Bassett (ACPIN Chair) with Stephen Hodgson the conference opening speaker

Stephen Hodgson
1990 Qualified as a Physiotherapist from Sheffield City Polytechnic.
1990-1998 Worked at Northern General Hospital, Royal Hallamshire Hospital (both Sheffield) and Chesterfield Royal Hospital
1999-present Lecturer at Sheffield Hallam University teaching on the undergraduate musculo-skeletal curriculum and post-graduation Manipulation course.

Clinical interests include: shoulder and vertigo rehabilitation, anatomy and the integration of orthopaedic and neurological approaches to patient management.

Completing PhD in Rehabilitation of fractured proximal humerus-initial results accepted for publication in the Journal of Bone & Joint Surgery (Br)

Private practitioner and physiotherapist for Sheffield RUFC .

INTRODUCTION TO THE UPPER LIMB LECTURE 2

Motor control of the upper limb

M J Mayston PhD MCSP, University College, London

The upper limb is able to perform a huge variety of actions including the placement of our hand(s) at the appropriate place for manipulation, to transport objects from one place to another, sensory identification of objects and for balance (Carr & Shepherd, 2003). Therefore upper limb function is essential for independence and full participation in every day life activities.

Upper limb control is complex: the seven joints of the shoulder girdle and numerous small joints of the wrist and fingers present a challenge in terms of controlling these many degrees of freedom in the neuromusculoskeletal system. Because the upper limb is linked to the trunk, other body segments are of necessity involved in its action for postural stabilisation and conversely, the upper limb itself can act to protect the body during a fall. The somatosensory system is critical, with sensory information crucial to effective hand function and vision playing an important role in the ability to reach and interact with objects.

A consideration of the motor control of the upper limb requires an appreciation of:

- the role of the hand to move to the object or scene of action,
- attention to the object and the environment,
- the required postural adjustments to ensure smooth action
- utilisation of sensory information for task performance and object identification.

This presentation will focus on the corticospinal system which is essential for the independent and synchronised activity which enables reach and manipulation (Porter & Lemon, 1993; Bremner et al, 1991). This system is often compromised in people with stroke (Turton et al, 1996; Farmer et al, 1993).

Emerging evidence suggests that targeting upper limb practice can improve the possibilities of functional recovery particularly for stroke patients. Therefore an understanding of the motor control of the upper limb seems to be helpful in understanding how these strategies can be most usefully incorporated into therapy programmes.

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Dr Margaret J Mayston PhD MCSP
Trained at the Melbourne school for Physiotherapy in 1973 (BAppSc, Physio) and subsequently worked at the Royal Children's Hospital in Melbourne for four years before coming to the UK. Completed an MSc in Applied Physiology in 1990 (King's College London) and PhD in 1996 (Department of Physiology, University College London), followed by a three year post-doc. Currently lecturer in the Department of Physiology at University College London co-ordinating an MSc in Neurophysiotherapy and carrying out research and also working as therapy adviser at the Bobath Centre for children with Cerebral Palsy and Adults with Neurological Disability. She is also a Senior Bobath tutor (paediatric) and teaches all levels of Bobath paediatric courses in the UK and abroad.

Research interests include the use of neurophysiological techniques to understand the control of movement in healthy individuals and changes in the neural control of movement during development and in pathologies such as cerebral palsy and stroke.

Currently completing a preliminary study using the treadmill with partial body weight support to investigate its use in improving function and fitness in children with cerebral palsy.

Recent publications

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REACHING AND MANIPULATION LECTURE 1

Visuomotor control of the upper limb

Dr Jon Marsden Institute of Neurology, London

This presentation will describe the reciprocal parieto-frontal cortical circuits involved in visuomotor processing and the consequences of lesions to these areas.

Two parallel interdependent pathways will be highlighted. Firstly, the parieto-occipital and medial intraparietal areas are interconnected with the dorsal premotor cortex and sub-serves the control of reaching. Multi-modal neurons within these areas encode the spatial location of objects relative to the observer. Neurons may also show directionally specific modulation of their firing rates. Secondly, the anterior intraparietal area is interconnected to the ventral premotor cortex and sub-serves the control of

grasping. Here neurons that encode 3D object characteristics and actions directed towards specific object types may be identified.

In humans a lesion to the parietal areas described results in a deficit of visuomotor co-ordination called optic ataxia or visuomotor apraxia. In this condition deficits in reaching, hand orientation and hand preshaping have been described which are not explained by a simple motor or visual deficit alone. Further, disruption between the cortical areas involved in the knowledge of objects/tools and those involved in object-oriented action may result in the symptoms seen in ideational apraxia.

To date much research has focused on the importance of cortico-cortical circuits. However, we will conclude with evidence highlighting cortico-subcortical connections in visuomotor processing.

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Jon Marsden trained and practised as a physiotherapist prior to undertaking further training in Human Neurophysiology at University College London. He currently works at the Institute of Neurology, London under the supervision of Dr Brian Day. His research presently focuses on the physiological mechanisms underlying improvements in balance following stroke and the modulation of spasticity by therapeutic interventions.

REACHING AND MANIPULATION LECTURE 2

Cognition in reach to grasp

Paulette van Vliet University of Nottingham

Cognition for reach to grasp includes information processing for perception of objects in the environment, generation of motor commands and monitoring and adjustment of the movement as it happens. This paper will first outline what is known about these processes from behavioural measures. Secondly, changes in reach to grasp following stroke will be described.

Object properties such as size, shape and weight are encoded as perceptual 'schemas' and control units for the movement such as transportation of the hand to the target and preshaping and grasp of the hand are encoded as motor schemas. Initial position of the hand is also encoded.

Influential hypotheses for the parameters used to specify the movement describe the movement as being planned either in task space or in joint space. The existence of a functional constraint has been proposed to simplify the problem of controlling the many degrees of freedom of motion in reach to grasp.

Reach to grasp can be almost entirely pre-programmed. To improve accuracy of grasp, proprioceptive and visual feedback from the moving limb may be utilised, as well as visual information about the target. Evidence of synchrony between key events in the transport and grasp components of the reach has led to the proposal of a time-based coordinated control program for reach to grasp (Jeannerod , 1984, 1986).

Following stroke, kinematic analyses indicate that the movement is performed more slowly, with corrective submovements and an increased reliance on visual feedback.

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Paulette van Vliet speaking at the conference

Paulette van Vliet
Current position Post-doctoral Research Physiotherapist, Division of Stroke Medicine, University of Nottingham UK.
Degrees B Appl Sc, Cumberland College of Health Sciences (1982), Sydney, Australia; MSc, Loughborough University, UK (1990); PhD, Nottingham University, UK (1998). Thesis title: *An investigation of reaching movements following stroke.*
Research Interests Recovery of upper limb function after stroke; retraining of reach to grasp; motor control of upper limb in normal subjects; stroke rehabilitation in general.
Recent publications include papers on retraining reaching after stroke, comparison of content of two physiotherapy approaches for stroke and reliability of the modified Ashworth scale.
Teaching Post-graduate teaching on movement science based analysis and treatment of stroke patients' movement.

REACHING AND MANIPULATION LECTURE 3

Pain in the upper limb – the psychosocial implications

Lester Jones St George's Hospital, London

When considering this topic, an important distinction needs to be made between nocioception and pain. The term nocioception relates to the identification of noxious stimuli and the resultant transmission of nerve impulses. Pain is defined as 'an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage' (IASP). Put simply, pain is always 'located' in the brain! It is a perception based on the evaluation of inputs and previous experiences of the brain.

Psychological and social factors are an important aspect of this evaluation by the brain. Focus of attention, coping strategies, irrational fears and level of self efficacy are standardly addressed in successful cognitive behavioural programmes, which are designed for sufferers of chronic pain. According to well regarded models of pain – the Neuromatrix and the Mature Organism Model – the same consideration should be made when managing patients with acute pain.

With neurological damage, the picture is complicated by the response of the nervous system. Where there are significant discrepancies in performance, there may also be carry-over effects on mood and the ability to participate. According to the Mature Organism Model this would create a situation of stress where the brain would be scrutinising its inputs and prior experiences for anomalies.

Evidence will be presented to support a significant role for psychological and sociological factors in the report of pain. The implications this has on clinical practice will be considered.

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Lester Jones is currently employed as Senior Lecturer in the School of Physiotherapy, Faculty of Health and Social Care Sciences, St George's Hospital Medical School and Kingston University.

Trained in Melbourne and worked in a rehabilitation centre attached to Royal Melbourne Hospital for five years, before moving to Sydney to work at the University of Sydney, Pain Management and Research Centre at the Royal North Shore Hospital. Three and half years later moved to London to take up the current academic position.

Degrees and diplomas include a Bachelor of Applied Science (Physiotherapy), a Bachelor of Behavioural Science, a Graduate Diploma in Behavioural Studies in Healthcare and a Masters of Science in Medicine (Pain Management).

Recent presentations and courses have covered topics relating to pain, including complex regional pain syndrome, clinical issues in pain and student education.

Enjoying lunch in the hotel courtyard

CLINICAL REASONING AND TREATMENT INTERVENTION LECTURE 1

Scapular/humeral relationships and dynamic stability dysfunction

Jacqui Clark Kinetic Control Tutor, New Zealand

This introduces the concept of dynamic stability and muscle balance. The movement system as a source of dysfunction, disability and symptoms is considered. Physiological and anatomical aspects of movement are reviewed. A functional classification of the muscle system is presented along with the typical dysfunction patterns in the local and global muscle systems. Dynamic stability dysfunction is described in terms of uncontrolled movement (give) and loss of movement (restriction) and the relationship to dysfunction and pain is considered with particular application to the shoulder girdle.

The process of assessing movement function and correcting movement dysfunction is mentioned and supported with extensive evidence in contemporary literature.

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Cherry Kilbride ACPIN Secretary (left) and Jacqui Clark, Kinetic Control tutor from New Zealand

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Jacqui Clark
Jacqui is a UK trained physiotherapist and Accredited Tutor for Kinetic Control. She lectures extensively around the UK, Europe and New Zealand on Movement Dysfunction and muscle imbalance and has a particular interest in the application of these concepts to the neurologically impaired patient. Her neuro-musculo-skeletal clinical practice in New Zealand focuses on the re-education of motor control and rehabilitation of movement dysfunction in both the out-patient and the neuro setting.

CLINICAL REASONING AND TREATMENT INTERVENTION LECTURE 2

Can we change tone and patterns of arm movement in the upper limb?

Catherine Cornall Bobath Tutor, Dublin

Upper limb activity is central to our social function and cultural interaction. The restricted range and limited movement options so typical post stroke are a source of distress and loss to many patients. Latash and Anson [1996] suggest that the movement patterns seen post lesion are 'adaptive' strategies that are 'normal' for this population and that change is unnecessary.

An alternative view is that the movement patterns seen represent compensatory strategies produced by the damaged CNS within the constraints of the musculoskeletal system. These strategies are not always effective and may in themselves lead to other problems eg soft tissue shortening. It would therefore seem appropriate that we should at the very least try to optimise movement and upper limb activity. But what should we do? Evidence would suggest that therapy is limited in its success in restoring function post stroke with only 50% of patients regaining functional use of the upper limb.

Where are the goal posts for recovery? For some individuals it may be the restoration of a functioning arm .For others it may be a limb that can be involved in bimanual activities. At the very least it should be for a limb that does not interfere with balance and functional activities such as washing and dressing and which is not aesthetically compromised. While evidence supports the efficacy of therapeutic intervention no consensus has been reached regarding the optimal treatment approach.

What stops patients achieving recovery of the upper limb? For some the site and size of the lesion will be a limiting factor for others the experience post stroke may deprive them of the opportunity to regain activity.

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Catherine Cornall BSc MCSP MISCP
Trained at King's College Hospital many years ago. A rotation as a basic grade at the Regional Neurological Rehabilitation Unit then in the old Eastern Hospital now the Homerton confirmed an interest in the treatment of the neurologically impaired adult and more particularly in the rehabilitation from traumatic brain injury.

There followed a period at the National Hospital for Nervous Diseases Queen Square before returning to the RNRU at the Homerton as Senior I. After eight years, transported kicking and screaming to live in Ireland and after a brief retirement to domestic chaos a return to working in neurological rehabilitation. This coincided, fortunately, with the development of Ireland's first dedicated adult brain injury unit within the National Rehabilitation Hospital Dun Laoghaire. Currently employed part-time as Clinical Specialist Neurology/Stroke.

Qualified as a Bobath Tutor in 2002.

CLINICAL REASONING AND TREATMENT INTERVENTION LECTURE 3

Proprioception and rehabilitation of the upper limb

Dr Jill Ramsay University of Birmingham

Proprioception, the often forgotten sense has been gently making waves for nearly a century. Head and Holmes (1911) presented detailed case notes describing proprioceptive loss and since this time the role and function of this sensation has been investigated amongst others by neurologists, physiologists and sports scientists. Many studies have reported the loss of proprioception associated with specific pathological and traumatic musculoskeletal conditions as well as neurological conditions. Both the upper and lower limbs have come under scrutiny particularly with athletic and traumatic injuries. Where proprioception is diminished there is risk of musculoskeletal damage, however with musculoskeletal injury there is risk of proprioceptive impairment.

Proprioception encompasses both awareness of position, movement sense and appreciation of weight. The methods of assessment of both position sense and awareness of movement are numerous and varied and have been reported using passive or active movement and with a combination of both.

Rehabilitation studies have reported specific exercise programmes, undertaken primarily to improve muscle strength and control have resulted in improved joint proprioception. This in turn has impacted on the rehabilitation of proprioception in both musculoskeletal and neurological rehabilitation.

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Jill Ramsay
Jill qualified as a Chartered Physiotherapist in the UK and worked clinically in London, Oxford, Solihull and North Essex. She entered education, teaching in Birmingham at both the Queen Elizabeth and The Royal Orthopaedic Schools of physiotherapy and is currently a lecturer at the School of Health Sciences at the University of Birmingham. Her main interest is in neurology and in 2001 Jill completed her doctoral thesis at Birmingham University looking at proprioception and rehabilitation of the upper limb following stroke. This work is being developed in looking at lower limb weight-bearing and proprioception in the rehabilitation environment with stroke patients. Her work in neurology with undergraduate students has led to the development of novel methods in teaching and particularly in developing observational skills in movement analysis.

CLINICAL REASONING AND TREATMENT INTERVENTION LECTURE 4

Analysis of washing and dressing

Sue Stephenson Head of Therapy, Southampton Hospital

Activity analysis, as understood from the occupational literature, provides the therapist with a tool whereby the nature and performance of an activity may be understood, its demands described and its therapeutic usefulness evaluated (Hagedorn 1997).

Washing and dressing can be considered a significant routine activity which requires analysis if the therapeutic demands and opportunities it affords are to be understood and utilized in treatment.

A current model of analysis is presented and an appropriate framework for the analysis adopted. A broad brush approach is used to highlight the value of the activity as a purposeful and

meaningful 'whole', which in itself can be an important motivational factor for improving task performance, as can the concrete (as opposed to the abstract) nature of the tasks involved. The systems model of motor control provides a useful backdrop for emphasising the uniqueness of task performance arising from the interaction of multiple factors. At the simplest level these comprise individual, task and environment (Shummway-Cook & Woolacott, 2001).

The therapeutic potential of the activity is considered under five main areas: Motor; Sensory; Perceptual; Cognitive and Cultural and where relevant this is linked to upper limb function. The physiotherapists' role in terms of the therapeutic use of this activity is considered and the importance of engaging individuals in purposeful activity to optimally re-learn skills is highlighted.

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Sue Stephenson

Qualified in 1983. Worked for five years in an acute hospital and Social Services department. Then spent three years as a therapist in Asia with The Leprosy Mission. Returning, she worked in a neuro-rehabilitation setting in Southampton, then at the RNRU at the Homerton Hospital, East London and did an MSc in Rehabilitation and Research. She then took up a full-time lecturing post at Queen Margaret University College, Edinburgh. Two years later, wishing to resume some clinical work took a part-time lecturing post at Southampton University combined with a clinical specialist post in a community neurological team. Returned in January 2003 to the NHS full-time, continuing the specialist post and acting-up as Therapy Services manager. Sue sits on the national committee as Information officer for NANOT and is an associate member of ACPIN.

CLINICAL REASONING AND TREATMENT INTERVENTION LECTURE 5

Management of the subluxed low tone shoulder – a review of the evidence

Alex Morley Sheffield Hallam University

Management of the low tone shoulder remains a controversial subject in physiotherapy departments across the UK. There are many devices on the market which are suggested to improve alignment in the subluxed glenohumeral joint. Research evidence suggests that the use of triangular bandage (Bucholz-Moodie et al, 1986), Rolyan humeral cuff (Zorowitz et al, 1995), Harris Hemisling (Brooke et al, 1991), lap board or arm trough (Bucholz-Moodie et al, 1986) may be the most effective devices at realigning the glenohumeral joint but all these devices have their limitations. Functional electrical stimulation has also been suggested to be of use in prevention of subluxation, although evidence of long term improvements remains questionable (Baker and Parker ,1986, Chantraine et al 1999 and Faghri et al,1994).

With increasing evidence around muscle architectural changes with immobilisation (Williams and Goldspink, 1978, Tardieu et al,1982) and disuse (Narici et al, 1998,) physiotherapists have a growing evidence based rationale to help them determine the most effective use of interventions addressing malalignment of the shoulder joint. Williams and Goldspink (1978) suggest alterations in animal muscle architecture with immobilisation. In the shortened position these changes include loss of sarcomeres and an increase in sarcomere length, in the lengthened position it is suggested sarcomeres are added but shorten. Tardieu (1982) investigated adaptation of connective tissue in cat soleus and found shortening of the connective tissue around the muscle belly following immobilisation in the shortened position. Narici et al (1998) have recorded a decrease in deep pennation angle in multi-pennate muscle and a decrease in fascicle length with disuse.

This presentation aims to outline the changes occurring in muscle architecture around the shoulder with disuse and immobilisation, moving on to suggest how consideration of these adaptations may be important in the management of low tone shoulders in the clinical setting.

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Alex Morley

Qualified with a BSc (Hons) Physiotherapy from Manchester Royal Infirmary School of Physiotherapy in 1991 and then worked for two years with Mid Essex Hospitals trust. In 1993 she specialised in neurology working at the Royal Hallamshire Hospital in Sheffield where she worked for seven years. During this time she also completed her MSc in Physiotherapy Practice in Neurology at the University of East London. It was whilst working in Sheffield that Alex was involved, with a group of fellow clinicians, in an evidence based practice project looking at management of the subluxed low tone shoulder.

At present Alex is working as a senior lecturer at Sheffield Hallam University as part of the neurology teaching team.

Delegates at the Gala dinner on the Friday evening

CLINICAL REASONING AND TREATMENT INTERVENTION LECTURE 6

Why do arms take so long to recover?

Jill Dawson Clinical Specialist OT, Queen Square, London

This closing session will explore the commonly raised question of why arms take so long to recover, or in fact, ever recover at all.

The complexity of upper limb recovery and the requirements for functional use will be revisited, along with the need to review the way in which upper limb function is measured. In addition to the neurophysiology of recovery, the impact of functional, psychosocial and environmental issues will be raised and debated.

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Jill Dawson MSc Dip COT SROT

Clinical Specialist Occupational Therapist at the National Hospital for Neurology and Neurosurgery, London. She graduated in 1990 and began her career in neurological occupational therapy at St Bartholomew's Hospital, London. Since this time, she has worked in a number of Regional Neurological Rehabilitation Units in central London, mainly working with people with complex and challenging presentations.

In 1999, she completed an MSc in Neurorehabilitation from Brunel University, passing with distinction. Her dissertation was entitled 'Can people with left neglect learn to drive electric wheelchairs?' Jill has been involved in London NANOT and the Stroke Clinical Forum, and is current Chair of National Association of Neurological Occupational Therapists.

Free papers

FREE PAPER 1

The effect of affordance on retraining the reach-to-grasp movement after stroke

HJ Hill, A Sunderland*, **P van Vliet**, Division of Stroke Medicine, School of Psychology*, University of Nottingham

Introduction Arm rehabilitation following stroke comprises actions involving objects. Clinical practice is moving towards using meaningful objects, from using meaningless objects, with little evidence (Wu et al, 1998). Data from healthy and post-stroke volunteers indicates that both object type and context influence the reach-to-grasp movement. We recorded movement towards two high-affordance objects with that towards low-affordance control objects, twice before and and twice after two weeks of home-based practice.

Subjects Four volunteers who had returned home following unilateral stroke were recruited. Inclusion criteria were Rivermead Motor Assessment (arm section) > 5, able to give informed consent and manage home practice.

Method A repeated-measures counterbalanced design applied to four case studies. Kinematic recordings of reaching movements to the participants own mug, remote control or control objects were made using a MacReflex motion analysis system. Home practice involved either high-affordance or low-affordance objects. Matlab programmes were written to analyse the data.

Results Practice at home for two weeks improved the kinematic parameters of the reach-to-grasp movement, giving better, smoother movements. However, object type had a differential effect on the spatial and temporal kinematic parameters.

Conclusions Unexpectedly, these results indicate that object affordance may influence the recovery of principal elements of the reach-to-grasp movement in different ways. The clinical implication is that understanding cognitive influences on motor control may be central to optimizing arm rehabilitation.

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Wu CY, Trombly CA, Lin KC, Tickle-Degnen L (1998) *Effects of object affordances on reaching performance in persons with and without cerebrovascular accident* American Journal of Occupational Therapy 52(6) pp447-456.

FREE PAPER 2

The effect of robot mediated therapy on upper extremity function post stroke – a single case study

Susan Coote, ***Brendan Murphy**, **Emma Stokes**, School of Physiotherapy, Department of Statistics*, Trinity College Dublin

Introduction Robot mediated therapy (RMT) involves repeated practice of a tailor made exercise programme, with the robot providing the appropriate level of assistance or resistance. This form of intervention is supported by the connectionist models of recovery (Robertson & Murre 1999) and the suggestion that repetitive, task oriented, movements lead to the changes at brain level required for motor learning (Dobkin 1998).

Method Mr G completed a baseline measurement phase (A, eight measurements), a period of RMT (B, 9 measurements) and a period of sling suspension SS (C, nine measurements). Motor Assessment Scale, Fugl-Meyer and active and passive range of motion were measured at every visit.

Analysis Initially, visual analysis of the plotted data was used to identify changes in the rate of recovery. Univariate linear analysis was used to quantify the slope through the A, B and C phases.

Results The patient was a 71-year-old gentleman who had no sensory deficit, a normal star cancellation test and no hemianopia. His baseline Fugl-Meyer score was 22/66.

The slope value (rate of recovery) for 12 of the 19 variables was higher in the RMT phase than both the baseline and SS phases.

Conclusion The results of this single case study suggest that RMT has positive effects at the level of impairment and disability. Replication of this result across other individuals is needed in order to draw definite conclusions as to its therapeutic benefit. Analysis of the other single cases in the GENTLE/s clinical trial is ongoing.

ACKNOWLEDGEMENTS

This study formed part of the GENTLE/s project, which is funded under the 5th Framework of the European Commission. Partners are: University of Reading (UK), University of Newcastle (UK), Staffordshire University (UK), Rehab Robotics (UK), University of Ljubljana (SI), TNO-TPD (NL), Zenon (EL), Virgo (EL) and Trinity College Dublin (IRL).

Regional reports

EAST ANGLIA

Sesa Ishaya
Regional representative

East Anglia continues to benefit from a full committee, and have continued organising four major courses a year.

Sue Edwards kindly travelled to our region to run a two day splinting course in November, followed closely by Martin Watson, who inspired his audience with an insight into 'Describing a rose with a ruler'. This was an 'interactive' look at outcome measures used in our field.

Ipswich Hospital hosted a 'FES' course, run by the tutors from Salisbury Hospital, which was a great success – and, dare I say, stimulating in it's own right!

Future events include a neuro-respiratory course, combined with the AGM at Addenbrooks Hospital and a facial stimulation course, again at Cambridge. Mid October brings us to another course at Ipswich Hospital, on the application of the Swiss Ball in Neuro by Joanne Elphinston. Applicants should contact Carmel Jordon on 01473 702073.

Thanks to all the committee members for their work in organising these courses, and, as always, the door is open for any other ACPIN members who wish to become involved in their Regional Committee. Our Chairperson would be happy to give you further information; Louise Kenworthy, 01473 702072.

Finally, just a reminder for anyone who may need it – don't forget to renew your membership for 2003!

KENT

Janice Champion
Regional representative

This last year has seen a healthy increase in the membership numbers of the Kent region and we hope this will be continued in 2003.

This years programme is still in the planning stage, however our 2003 AGM is scheduled for March 20th when the GBS support group will be talking to us. Professor John Rothwell should be coming in May to lead a study day on the Central Nervous System. The date and title of this day are not yet confirmed.

Also Dr Cecily Partridge is continuing to act as facilitator for a small group of ACPIN members who have been working since June 2002 on single case studies. We are hoping these therapists will be rewarded by seeing their work published this year.

Our aims for the forthcoming year are to improve the networking of the 'neuro-physios' in the region and to support the professional development of our members by providing informative and thought provoking meetings and study days. We are always looking for interested members to join the Committee and help us to plan future meetings.

For further information contact Janice Champion at Medway Maritime Hospital, 01634 833959.

LONDON

Anne McDonnell
Regional representative

London ACPIN has continued to have an evening lecture once a month and a day or half a day course every six months. The Committee has had some changes recently, and we are always looking for new committee members. Please contact anyone on the London Committee if you are interested.

All London ACPIN members should have received a programme for 2003 by post. The programme has been finalised, but please ask a committee member, or look in *Frontline* for details closer to the time.

Remaining 2003 programme

Evening lectures 6.00 for 6.30pm.

- 13 May *PTAs and their role in neuro rehab* Sue Skewis and assistant representative (Royal Free)
- 10 June *Neurosurgery* Neil Dorward (Royal Free)
- 8 July *Management of contractures* Professor Rushton (Kings College Hospital)
- 13 September *Study day – Diagnostic testing and patient rehab in clients with vestibular problems* John Marsden and Jane Harrison (St Thomas')
- 14 October *Disease modifying drugs* Dr Giovanni (The National)
- 11 November *Acupuncture and its role in clients with neurological disorders* Valerie Hopwood (St Thomas')
- 3 December *Neurogenic pain* Dr Nandir (The National)

For further information please contact our new regional representative Sandy Chambers (see details on page 48).

MANCHESTER

Louise Rogerson
Regional representative

The Manchester Committee is currently looking for new members to join the ranks. We have two upcoming vacancies – treasurer and programme secretary, both of which will be supported by our current officers with their many years of experience. As a committee we continue to work on our CPD together and are currently looking at our aims and objectives for the coming year.

We have recently devised a new certificate for our committee members to verify what is required and to acknowledge the level of commitment and hard work carried out. We will be presenting these at the AGM, which will be held in March, and hopefully there will be new members elected at this time.

As a committee we would like to thank all the speakers, without them there would be no programme! We would also like to thank members for attending the lectures and showing their continued for support for the region. Once again this year we will be using our evaluation forms and we ask for any suggestions and recommendations for next years programme.

This year we are hoping to run a couple of weekend courses, the exact details are being worked out at this time, but information will be available soon.

Remaining 2003 programme

- 24 April *Research feedback (MRI)*
- 19 May *Botox* (Cleasby Centre)
- 24 June *Motor relearning – a review* (Hope Hospital)
- 23 July *Vestibular rehab* (Preston)
- 10 September *Ankle and foot instability* (Venue TBC)
- October *EMG* (Date and venue TBC)
- 25 November *Painful subluxed shoulder workshop* (Macclesfield)

MERSEYSIDE

Jo Jones
Regional representative

2003 welcomed a new member – Emily Walker to the Merseyside Committee which continues to grow from strength to strength - we even have our own PRO! At last count, group membership numbered 27, however we suspect this drop is a reflection of tardy membership renewals more than anything else, so get those forms filled in and sent off asap!

Our 2002 programme concluded with a well-attended and very informative lecture on Neuromodulation and continuing the momentum, the 2003 programme kicked off with a highly successful study day on Head Injuries, a full review of which has been provided for *Synapse*.

Remaining 2003 programme

- 24 June *Vestibular Rehabilitation Single day course* by Pam Mulholland
- 18 September *Workshop* facilitated by Sharon Williams
- 11 November *Spasticity study day to include lectures on pathophysiology, baclofen pumps and botulin toxin*

As you will see, we are fortunate to again host a workshop facilitated by Sharon Williams – any of you who have attended previous workshops will appreciate their clinical value and we once again thank Sharon for her continued support.

And finally – as we are already in the throws of planning for 2004, any ideas for future lectures/courses are always welcomed, so get your thinking caps on and we look forward to seeing you all at the AGM in April.

NORTH TRENT

Alex Morley
Regional representative

North Trent have had a relatively quiet end to 2002 with one last lecture in October on 'Soft tissue changes in Neurology'. The 2003 lecture programme commenced on the 28th January with an evening lecture on 'Management of patients with Parkinson's disease'.

Remaining 2003 programme

- May *Vestibular Function* – Evening lecture – speaker to be confirmed
- July *Botulinum toxin use in neurological patients. A look at the evidence* – evening lecture by Dr Sue Mawson
- October *Reflex changes in Stroke* – day course by Dr Mary Cramp
- November *Use of Pilates in patients with neurological problems* – evening workshop by Karen Cheek

NORTHAMPTON

Dr Tim Meads
Acting regional representative

We have had a fairly successful first year after setting up the Northampton ACPIN group. Our membership currently stands at 25-30 and new members are always very welcome, as are suggestions for future events.

We finished 2002 with a very popular and well received evening lecture by Andrew Clements from the Leicester Balance Centre on 'Vestibular rehabilitation'. Following this in January we had an interesting MS study day at the MS centre in Bedford which was also well attended.

We have several events planned for 2003 though some of the dates are yet to be finalised. We continue the year in February with one of the study days on the use and role of botox in the management of spasticity. In May, there will be a patient demo/workshop with Jon Graham, to whom we extend our thanks for his continued support. Other events planned for 2003 include a practical Pilates evening, an update on Parkinson's Disease, management of epilepsy in the neurological patient, and possibly an update on the use and effects of cannabis with respect to tone, pain etc. Further events are also in the planning stage.

We hope that we can continue to grow in 2003 and help provide an informative and interesting forum for anyone in Milton Keynes, Northampton, Bedford, Rugby, Wellingborough, Corby, Kettering and surrounding areas, who has an interest in neurological rehabilitation.

NORTHERN

Julia Williamson
Regional representative

The last six months here in the North of England have been interesting and packed with a wide range of courses and lectures. Attendances at day/two-day courses have been excellent with a waiting list system in operation for all of them. However evening lectures have seen a dwindling number of attendees despite a varied programme and venues across the northeast at least. The committee is therefore going to ask (via a questionnaire to those attending other courses) what the members want, when they want it, even whether they would like evening lectures at all. Anyone with any ideas/ suggestions please contact any committee member, our aim is only to please!

Courses to date include a hugely popular three weekend introductory Bobath course with Liz Mackay. Dave Fitzgerald led a very intensive one-day course on 'Muscle imbalance', reach for those anatomy books! It was decided this might be better, if repeated, spread over a couple of days to give time for more practical sessions.

With the introductory Bobath weekends stretching into March, our next big course is a 'Neuroplasticity update' with Nigel Lawes on April 5th. We will run a course in June covering the 'Management of spasticity using botulinum toxin', taking advantage of local talent, including Sandra Stark who is one of the few therapists in the country who injects. Alan Bass is booked for October and will cover the head and neck, head on trunk and its role in balance, date and venue to be confirmed. Please watch for flyers for evening lectures depending on the results of our questionnaire.

NORTHERN IRELAND

Siobhoan Mac Auley
Regional representative

Following our AGM in January we have had quite a few changes to our committee. Thank you to Pauline Glenfield as our outgoing chairperson and welcome to Orla McGinn as our new chairperson,we also have a few new committee members and we are looking forward to new ideas.

In May we have a spasticity and splinting course with Sue Edwards. We will then have a break over the summer months. We are currently looking at new ideas for next year – all ideas are welcome.

OXFORD

Annabelle Cooper
Regional representative

In 2003, Oxford ACPIN continues to have a prosperous membership and the committee has remained at its most affluent in recent years. We do however, continue to seek committee members from all areas of the region so that we can carryout more evening lectures at venues suitable for members in currently sparsely accommodated areas. Anyone with little or lots of interest is encouraged to contact myself or Claire Guy on 01865 737372/5.

New for 2003 was the circulation of a leaflet outlining the programme of lectures for early 2003 and committee contact numbers. We hope to continue this procedure in the future if members found it useful.

Remaining 2003 programme

- Saturday 28 June *Neurophysiology – a clinical application for therapists* A one day course by Martine Nadler. Post Graduate Centre, Royal Berkshire Hospital. Further details will be advertised
- Details for September through to November will sent to regional members in the coming months.

Thank you again to all those who have given interesting and stimulating lectures during 2002. We look forward to seeing as many members at lectures in 2003 and welcome early suggestions as we begin to develop the programme for 2004.

SCOTLAND

Emma Forbes
Regional representative

The new 2003 programme is being put together with the AGM, at April's study day and, if not, then in May. We are moving the study days around geographically this year in an effort to make them more accessible.

Two places are available on the Scottish committee and any interested parties should contact Sarah Davidson (Scottish chair-person). I am resigning as regional representative and Cassie Gibson is to take over this role (for contact details see page 48). I will remain as a committee member.

Scottish ACPIN are hoping to become a forum for Clinical Effectiveness throughout Scotland so we endeavour to bring you all activities that are happening. If you are a Clinical Effectiveness representative in your area please let Lorna Melville know your current projects.

We are now into a New Year and I encourage you to renew your membership and please encourage your colleagues to join. ACPIN do subsidise members on the courses they run and also funding is available for non-ACPIN courses.

Remaining 2003 programme

- April *Brain injuries* Katie Wilkie (Date and venue to be confirmed)
- June *Rehabilitation of gait* Debbie Strang (Date and venue to be confirmed)
- 23 August *Rehabilitation of hand function following stroke* Wendy Wilson (Occupational Therapist) (Glasgow)
- October 2003 *Gulliane Barre Support Group* (Date and venue to be confirmed)
- 29 November *Dyspraxia* Therese Jackson, (Occupational Therapist) (Dundee)

SOUTH TRENT

Linda Cargill
Regional representative

Welcome to our new members and thank you to everyone for their hard work. The current membership stands at 44 with seven on the committee. If anyone is interested in joining the committee we are still able to accept new members.

We are also keen to recruit a representative from each hospital in the area who will be able to ensure the smooth distribution of course information.

Remaining 2003 programme

- 7 June *Movement science – approach to gait* Andy Foxall (Coalville)
- 4 October *Integrated approach to treatment of neurological patients – pelvis* Karen Rowland and Steve Hodgson (Derby)
- 22 November *Integrated approach to treatment of neurological patients – shoulder* Karen Rowland and Steve Hodgson (Derby)

The AGM will be held in Leicester with a lecture on neuro linguistic therapy. Date to be confirmed.

SOUTH WEST REGION

Gina Sargeant
Regional representative

Over the last six months the committee has continued to try to offer a range of home grown and outside speakers, this appears to have been the right way forward and popular, so far. Our programme has 'crystallized' and the programme cards are almost ready to go out, these will be issued at the AGM. Anyone who thinks they will not be there please contact myself, Liz or Jeannie as we are in the process of compiling an email link to all members.

Lectures have been well attended and the 'ever-committed' committee has appreciated the enthusiasm, long may it continue. The AGM format is a new venture for us this year, with several local physiotherapists presenting a series of poster presentation/ workshops, we hope this format will generate discussion among the attendees and spread awareness of areas of interest within our region.

We have also had an Elan Study afternoon in Bristol, which proved to be very successful, our Regional Chair Liz chaired the meeting very well and introduced excellent lectures, given by Ros Wade, Sue Edwards and Dr Badwan. The committee were very impressed with the turnout at over 90, this will hopefully provide a good database of names and inspired us that such numbers could be achieved from the South West Region.

I would also like to welcome the new members to the committee and take this opportunity to thank them all for their support and humour through the drama of my broken leg, much appreciated.

Remaining 2003/4 programme

- May *Muscular dystrophy update* Dr Hill (Frenchay Day Hospital – contact Carole Sole or Jill Boot 0117 9701212 Ext 6565)
- 21 June *Plasticity related to Spasticity* – Study Day, John Rothwell (Post Grad Centre, Frenchay Hospital– contact Lynsay Mills, 0117 9562697)
- 11 September *MS update* Professor Scolding Frenchay Day Hospital – contact Jill or Carole as above)
- 28 September *Ataxia workshop* Jon Marsden (Royal United Hospital Bath – contact Kirsten Cheadle 01225 42831)
- 15 November *Latest developments in trophic stimulation, EMG and biofeedback* Dianne Farranger (Bristol General Hospital – contact Gina Sargeant 0117 9562697)
- January 2004 *Gym ball workshop* (Frenchay Hospital – contact Jill and Carol as above)
- 21 March 2004 *Meeting Challenging Behaviours … other than Discharge* and AGM Dr Peter Eames (contact Jeannie Oakey, 01934 844574)

SURREY & BORDERS

Sally de La Fontaine
Regional representative

Surrey & Borders ACPIN now have 40 members and a committee of seven. In our first year of operation attendance at evening lectures has been good, which we are hoping will continue in 2003. Please continue to support us!

Attendance at our AGM on the 5th February was excellent when Anna Hamer presented a thought provoking case history on a patient who was making subjective and objective improvements eight years post stroke.

We recently distributed a questionnaire to our members to establish what our members thought of last years programme. We had a 54% return rate and the feedback was generally positive about the level of lectures given and their relevance. We have taken note of the fact that a lot of members would prefer a later start time and that the Royal Surrey Hospital in Guildford would act as a central venue for many members and will plan accordingly next year.

We still have to confirm specific times and venues for some of our 2003/2004 programme and will advertise all lectures and events in *Frontline* nearer the time.

Remaining 2003/4 programme

- 14-15 June *Introduction to specific musculoskeletal techniques for neurophysiotherapists* Laura Finucane (St Peters Hospital, Chertsey)
- 11 September *Dysexecutive Function* Drew Alcott (Neuropyschologist) (Woking Community Hospital) 19:00-20:00
- 13 November *Orthotics in relation to hypermobility problems* Paul Keeping (Orthotist) (Haslemere Hospital)
- 11 February 2004 *Recent and future developments in electrical stimulation* Jane Burridge (Frimley Park Hospital) – followed by AGM

SUSSEX

Susi Collins Howgill
Regional representative

I took over from Naomi in December and am just learning the ropes! In October we ran a one day course 'Cognitive behavioural therapy in relation to brain injury' led by Nigel Short which was well attended with full participation.

In November an evening lecture on 'Parkinson's research' by Bernhard Haas was excellent with good ideas to use in therapy.

We are currently planning the next programme so please send us your ideas. We have one meeting confirmed on 29th September to

discuss 'body weight support treadmill training', which will be held at Brighton University. In addition we are planning a Bobath Workshop, half day led by Helen Constantine, date to be confirmed.

We are also discussing with Kent ideas for shared study days.

Membership currently stands at 34. We look forward to meeting up soon!

WESSEX

Ros Cox
Regional representative

Welcome to 2003 with Wessex ACPIN. The year started well with a successful wine and cheese evening with members of NANOT and ACPIN to discuss local developments such as research projects, MDT clinics, and future programmes for ACPIN. We would like to welcome Clare from Portsmouth to the committee which should help spread ACPIN news further and allow us to hold courses and lectures at venues other than Southampton and Poole! Any other members who would like to join the committee are welcome. Most of our committee meetings are held an hour before the evening lectures so please come along and have your say about our programme or just to find out more about what is going on locally and nationally.

Remaining 2003 programme

- May *An update on Multiple Sclerosis research* Date and speaker to be confirmed
- June *Botox half study day* Jo Nesbitt (Southampton, and if enough interest another venue in Wessex with Ipsen sponsorship
- 2 September *Falls in Parkinson's Disease* – evening lecture Emma Stack (Southampton)
- October *GBS* – evening lecture GBS support group, date to be confirmed
- November *Splinting study day* Sue Edwards, date to be confirmed

We look forward to seeing you at our lectures and study days. This year we hope to be able to subsidise the courses to keep costs down and allow more ACPIN members to attend as we appreciate funding is not always available. Members who regularly attend meetings will be given priority at study days.

WEST MIDLANDS

Claire Smith
Regional representative

The West Midlands branch remains strong with a thirteen member committee. We continue to strive to organise a wide ranging and varied list of courses and actively promote ACPIN in our area. We have also given out a bursary in support of a masters project.

The motor relearning course that was held in November 2002 by Lucy Smith went very well and was oversubscribed. This course is due to be held again in June 2003. The Pilates course scheduled for June 2003 has been postponed. We hope to rearrange this once courses in late 2003 and early 2004 are confirmed.

Remaining 2003 programme

- June 2003 *Motor relearning* Lucy Smith
- September 2003 *Driving assessments*

The regional representative job has now been filled. Claire Smith will hold the post until May 2003, when Liz Cohen will take over the mantle! If there are any queries regarding our course programme, or joining the committee please contact Claire Smith on 0121 424 2494 or Liz Seal (soon to be Cohen) on 0192 649 5321, pager 6110.

YORKSHIRE

Caroline Brown
Regional representative

After a break over Christmas and the New Year Yorkshire ACPIN has a full, exciting Spring schedule. By the time you read this we will have hosted a study half day with Elan on Spasticity Management and an evening lecture entitled 'Handle with Care! Development of therapeutic manual handling training and guidelines'.

Remaining 2003 programme

- 29 April *Handling study day on Pelvis and Hip* Linzi Meadows
- May *MS study day* and AGM (details to be confirmed)
- 1 November *Gym ball* Janice Champion

Details of Yorkshire ACPIN events will be sent to each Yorkshire ACPIN member and advertised in *Frontline*. If anyone in our region has ideas for future lectures/courses please contact any committee member, or even better join the lively Yorkshire committee yourself as there will be several vacancies at the AGM. We look forward to hearing from you. For further information please contact Caroline Brown, on 01904 725747 (w).

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:

Research report
A report which permits examination of the method, argument and analysis of research using any method or design (quantitative, qualitative, single case study or single case design etc).

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.

Review paper
A critical appraisal of primary source material on a specific topic related to neurology.

Treatment report/case studies
A report of the treatment of a patient or series of patients which provides a base line description of established treatments, or a new insight into the techniques or treatment of people with a specific problem.

Service development quality assurance report
A report of changes in service delivery aimed at improving quality.

Abstracts
Abstracts from research projects, including those from undergraduate or higher degrees, audits or presentations. They should be up to 300 words and where possible the conventional format: introduction, purpose, method, results, discussion, conclusion.

Technical evaluation
A description of a mechanical or technical device used in assessment, treatment, management or education to include specifications and summary evaluation.

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.

Points of view
Articles discussing issues of contemporary interest and any other matters relating to neurological physiotherapy.

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*.

Copy should be:

- typed or printed
- double spaced
- on one-sided A4 paper with at least a 1" margin all round
- consecutively numbered
- include the name, qualifications, current position, and contact address of the author(s).
- Ideally, a disk copy of the material should also be included. Documents preferred in Microsoft Word for Macintosh or Windows.

References should use the Harvard system. In the text quote the author(s) surname and date (Bloggs 1994). At the end of the article give the full references with the first author/editors name in alphabetical order, eg:
Bloggs A (1994) *The use of bandages in the treatment of people with head injuries* Physiotherapy 67 (3) pp56-58.

Tables and figures should be given appropriate titles and numbered consecutively as they appear in the text. Each should be presented on separate sheets of paper after the text.

Any **photographs** and **line drawings** should be in black and white, in sharp focus with good contrast and at least 5" x 7".

Two copies of each article should be sent to:
Louise Dunthorne
Synapse Administrator
24 Warren Heath Avenue
Ipswich
Suffolk
email: louise@peterdunthorne.com

Note: all material submitted to the administrator is normally acknowledged within two weeks of receipt.

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Regional representatives

EAST ANGLIA
Sesa Ishaya
2 Heath Cottages
The Heath
Tattingstone
Ipswich
Suffolk IP9 2LX
t: (w) 01473 702072
e: airavatasesa@yahoo.com

KENT
Janice Champion
Coniston
Grain Road
Lower Stoke
Rochester
Kent ME3 9RE
t: 01634 270 198
e: jchampion@tesco.net

LONDON
Sandy Chambers
Physiotherapy Department
St Thomas' Hospital
Lambeth Palace Road
London SE1 7EH
t: 020 7928 9292 ext 3590
e: Sandra.Chambers@gstt.sthames.nhs.uk

MANCHESTER
Louise Rogerson
Hollingee Farm Cottage
Burleyhurst Lane
Mobberley
Cheshire WA16 7LR
t: 0773 6039817
e: fizzyeau@aol.com

MERSEYSIDE
Jo Jones
19 Coronation Drive
Liverpool L14 7NT
t: 0151 220 5050
e: jojones19@hotmail.com

NORTHAMPTON
Tim Meads
OP Physiotherapy Department
Northampton General Hospital
Northampton NN1 5BD
e: tj.meads@virgin.net

NORTHERN
Julia Williamson
15 West View
Clara Vale
Ryton
Tyne & Wear NE40 3SR
t: 0191 273 8811 bleep 1913
e: jules.claravale@virgin.net

NORTHERN IRELAND
Siobhoan Mac Auley
Physiotherapy Department
Belfast City Hospital
Lisburn Road
Belfast
t: 028 9032 9241 ext 2545
e: siobhanmacauley@bch.ni-nhs.uk

NORTH TRENT
Alex Morley
School of Health & Social Care
Sheffield Hallam University
Collegiate Crescent
Sheffield S10 2BP
t: 0114 2252239
e: a.s.morley@shu.ac.uk

OXFORD
Annabelle Cooper
Physiotherapy Department
Neurorehabilitation Service
Oxford Centre for Enablement
Nuffield Orthopaedic Centre
Windmill Road
Oxford
t: 01865 737300
e: annabelle.cooper@noc.anglox.nhs.uk

SCOTLAND
Cassie Gibson
3F1 114 Duke Street
Edinburgh
Scotland
EH6 8HR

SOUTH TRENT
Linda Cargill
176 Mansfield Road
Derby
DE1 3RB
t: 01332 347141 ext 4589
e: LindaPofty@aol.com

SOUTH WEST
Gina Sargeant
Frenchay Centre for Brain Injury Rehabilitation
Frenchay Park Road
Bristol BS16 1UU
t: 0117 956 2697
e: gina.sargeant@fshc.co.uk

SURREY & BORDERS
Sally de la Fontaine
Field View Cottage
Bailes Lane
Normandy
Surrey JU3 2AX
t: 01483 234219
e: sallydelafontaine@orchidserve.com

SUSSEX
Susie Collins-Howgill
Camden House
Hayes Lane
Slinford
West Sussex
RH13 7SQ

WESSEX
Ros Cox
1 Pascoe Close
Ashley Cross
Poole
Dorset BH14 0NT
t: 01202 665511 bleep 0294

WEST MIDLANDS
Liz Cohen
Physiotherapy Department
South Warwickshire General Hospital
Laken Road
Warwick
CV34 5BJ
t: 0192 649 5321 pager 6110

YORKSHIRE
Caroline Brown
Neuroscience Unit
York District Hospital
Wigginton Road
York YO31 8HE
t: 01904 725747
e: cazzabelle@hotmail.com

Syn'apse

Administrator
Louise Dunthorne

Editorial Advisory Committee
Members of ACPIN executive and national committees as required.

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e: kwgraphicdesign@btclick.com

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Address for correspondence
Louise Dunthorne
Synapse Administrator
24 Warren Heath Avenue
Ipswich
Suffolk
e: louise@peterdunthorne.com
t: 44 (0)1473 704150