POSTURE & MOBILITY GROUP

POSTURE & MOBILITY

Volume 9

Spring 1999

Dear readers

I am a GP and godmother to a lad with Duchenne MD. After nine years I am finally putting some effort into my godmotherly duties, and I am **running** in the **London Marathon** on April 18 1999 to **raise money** for the Muscular Dystrophy Group. My target is £2,000. Sponsership money can be sent to **85 Dalyell Road, London SW9 9UR**, any cheques made payable to the MD Group.

A big Thankyou to you,

with best wishes

Dr Sally Whittet

Cover Page: guess the Welsh mountain
Photo courtesy of the Editor

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Editorial

Greetings to another issue of.... Posture & Mobility. Yes a change of title. Hope it's agreeable. A committee decision was made to change the title to reflect the content of this professional magazine, which was felt to be more than simply Newsletter. Do wright in if you have any comments.

It would appear that disabled people aren't discriminated against within the health service, well that's my assumption following the huge, response I received to my editorial comments last issue! One wonders if anyone reads these editorials. Still I'm not one to be detered.

You'll notice a new section 'Mitchell's Marvels', named after a colleague who's full of the most profound statements, I'm sure there's many more like him out there, so do share those every day funnies that make life all the more enjoyable.

The next issue is to feature commercial adverts, all those interested turn to page 2. Another addition for the next issue will be equipment updates, this is open to both commercial and health professionals to review the clinical application of any medical devices in the field of Posture and Mobility.

Look forward to seeing you all at Glamorgan, I'm looking for volunteers to report on sessions and workshops, please see any of the editorial team if your keen. Don't forget your cameras

Phil Swann
Editor

Brain tickler

Fredrick is a young man working for a big multi-national company. Despite the fact he's poorly motivated, lazy, boring and inefficient he is the first to get promotion. Why?

Turn to page 14 for your first clue

Letter from the Chairman

Writing a letter in reply to the stimulating contribution from Terry Pountney (see Postbag), I realised that this letter is my last as Chairman of the Group. Three years have raced by in a delightful mixture of complete panic and utter terror - but being a Committee member actually is fun.... really. It has been a privilege to see through innovative and successful conferences and particularly to have been involved in the International Seating Conference at Dundee. The Committee has also seen through the writing, editing and publishing of the Guidelines document. You will see that I suggest in my letter to Terry that it is now perhaps time for the PMG to issue a further document relating to clinical standards. Work in posture is never a matter of sitting still.....

The 1999 Conference will be held in the University of Glamorgan, a new venue for PMG, with the theme of safety vs freedom. There is a recurrent tension between the restrictions imposed on our services by the Medical Devices Directive and the freedom of choice and action our client/patient group expects. I anticipate brisk but friendly exchanges of view and it will be interesting to see how our professional groups align, especially during the debate. Your Secretary is checking our insurance to ensure cover for personal injury, just in case. I hope to see another large turnout for the Conference bearing in mind that we are a little late with the documentation as a result of enforced programme changes.

The 2000 Conference is planned to be held in Llandudno and those of you with Celtic origins will be pleased to note that the Committee now uses the correct (we believe) pronunciation. PMG will celebrate the success of the millennium bug by holding an augmented Conference. We shall be inviting The Scottish Wheelchair and Seating Group and a number of special interest therapy groups to join us in a somewhat extended programme. As ever, details will follow as the event develops. We shall try for rather more success than Bill Bryson as far as accommodation is concerned however.

I deal with some of the issues around the possible future of our special interest in the Postbag but there is a perhaps more immediate topic to bring to your attention. The most recent White Paper on the NHS (The New NHS - Modern and Dependable) addressed the problems of co-operative actions between health and social security services. I believe the term "joined up thinking" is used to illustrate the desired approach. Whilst this seems to be aimed at hospital discharges, there seems no reason why posture management should not benefit from this political emphasis on collaboration. This could be discussed in the general assembly of the Group at Glamorgan.

As though there were not sufficient work to do, your Committee has now become involved in the activities of the British Standards Institute ; I now attend on behalf of PMG the meetings of Committee CH/4O which is addressing the development of standards for wheelchairs and seating. This is not the most exciting of committees but clearly it is important that the PMG has a voice in these standards. The role of all members of CH/40 is dissemination of standards proposals for comment and feedback. Members may thus expect a number of issues to come forward for discussion and comment. The work load of this committee is such that the UK needs to have a number of expert subgroups convened to tackle delineated work areas; the PMG has access to an enormous range and depth of expertise which cold be employed within these subgroups.

As a consequence of being the last person to duck, I have also been nominated to join the UK expert delegation to the International Standards Organisation. As the next meeting is in Orlando, I hope to combine this with attending the International Seating Symposium which immediately precedes the ISO meeting. Reports of both activities will be provided for the membership. It is unclear at the moment whether I, from the medical standpoint, am necessarily the most appropriate PMG representative to BSI/ISO. I shall discuss this with the PMG Committee once the pattern of work for CH/4O is clear.

A subsidised book purchase will again be open to all delegates attending the Annual Conference. There will also be a prize for the best free paper. It is possible that the Group could provide bursaries to students/individuals to attend future Conferences furthering our commitment to education. The Committee will welcome your views either at the AGM or via the Newsletter.

Have you noticed that spica is an anagram of Caps I?

Welai chi'n Morganwg!

Robin Luff FRCS FRCP
Chairman

THE SET UP AND AUDIT OF A REGIONAL EPIOC SERVICE

Following the governments announcement that funding was to made available for N.H.S provision of electrically powered indoor/outdoor wheelchairs (EPIOCs), discussions took place between a number of North West Thames Wheelchair Service Managers and Trust purchasers, to decide how EPIOC provision could be best undertaken. It was agreed that provision would made, via a regional EPIOC service, to be based at the Royal National Orthopaedic Hospital, Stanmore, Middlesex. The decision was made, because it was felt that individual wheelchair services did not have the necessary skills or facilities, to enable effective EPIOC provision locally, and that a larger regional service would be more cost effective.

It was identified at early stage that EPIOC provision had to be undertaken carefully, as the potential for injury, resulting from an accident or mishap using an EPIOC, was considerably greater than for any other class of wheelchair provided. The provision criteria stated that EPIOCs could only be prescribed to clients who met the criteria for provision of an indoor powered wheelchair(EPIC). By definition, this meant all potential EPIOC users would probably be regarded as severely disabled.

It was agreed that initial screening of clients applications, together with a home environment assessment, would be undertaken by staff employed at district level. This was felt to be appropriate, as many of the applicants would already be know by these staff.. In effect, this meant that the Stanmore EPIOC Service was responsible for the assessment, prescription, hand over and any training aspects of provision.

STANMORE EPIOC SERVICE

In its first year of operation, the Stanmore EPIOC service assessed and prescribed EPIOCs for approximately 120 clients.

Staff currently employed by the service include:

- ⇨ 0.3 WTE Consultant in Rehabilitation
- ⇨ 1.5 WTE Therapy
- ⇨ 1.5 WTE Rehabilitation Engineering
- ⇨ 1.5 WTE clerical/admin. staff

Clients are expected to undertake a medical examination, which is usually carried out by the consultant and a therapist. The medical assessment includes a seating/postural assessment, together with eyesight tests, perception/cognition tests and memory tests etc.

Upon completion of the medical examination, the client is then normally transferred into an appropriate EPIOC, to assess their actual or potential driving ability. The assessment is carried out using a formalised test procedure, which requires the user to show appropriate control of the wheelchair in a number of areas:

- ⇨ control of the chair in confined spaces
- ⇨ reversing
- ⇨ traversing slopes/rough ground
- ⇨ negotiating cones and other obstacles
- ⇨ kerb climbing (if appropriate)

PURPOSE OF AUDIT

The main purpose of the audit was to determine customer satisfaction in various aspects of service provided, i.e:

- ⇨ Pre-clinic contact and documentation
- ⇨ The Stanmore medical/driving assessment
- ⇨ Handover procedures
- ⇨ Training
- ⇨ Equipment supplied
- ⇨ Speed of delivery

Information could also be obtained regarding the level of client satisfaction with the technical performance of their wheelchairs, and the performance of the various Wheelchair Maintenance Contractors.

In addition, the audit was also undertaken, in order to determine how the EPIOC wheelchairs were being used, and what effects their provision had had on client/carer lifestyles.

The audit was performed by means of a telephone interview approximately 4 months post delivery of the wheelchair to a user.

CLIENT INFORMATION

Of the 91 clients included in this audit, the youngest was 5 years old and the oldest 90 years old. The mean age of clients was 50 yrs. 39 clients (42%) were male and 52 (58%) female.

Fifteen clients (16.5%) already owned a privately funded wheelchair, designed for use outdoors. A further 42 clients (46 %) were using N.H.S provided indoor only powered wheelchairs (EPICs). Only 34 (37.5%) of clients relied exclusively on the use of a manual wheelchair, for their prime method of mobility. However, a number of these said that they had actually used an outdoor powered wheelchair at some point in the past, primarily a Shopmobility loan wheelchair.

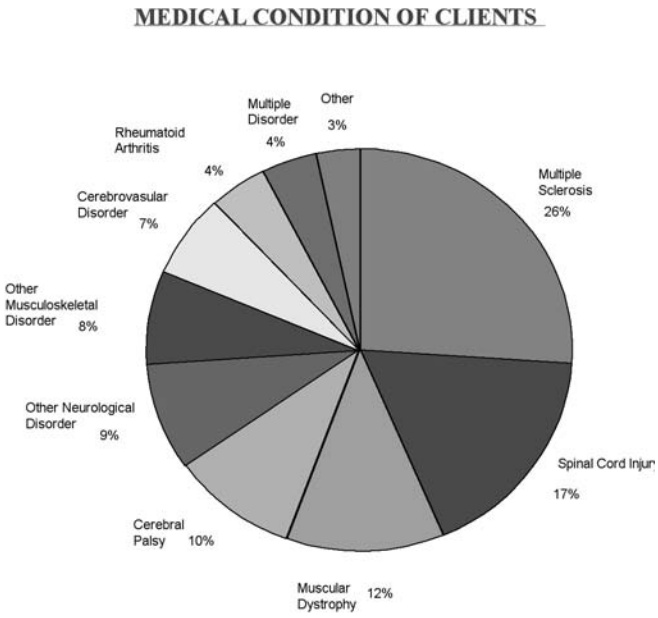


Fig 1

A wide range of medical conditions were presented, as can be seen in Fig 1. The most common condition was Multiple Sclerosis, followed by Spinal Cord Injury and Muscular Dystrophy. It quickly became evident, (as had been expected), that a high percentage of clients assessed in clinic, suffered from deteriorating medical conditions. It was felt that ideally, such clients would need to be reviewed at regular intervals following delivery of any wheelchair prescribed.

RESULTS OF THE CLINIC ASSESSMENTS

At least one clients did not progress to the driving assessment, as their eyesight was so poor that they were registered blind. In addition, the driving ability of a number of other clients was found to be too poor to allow them to be taken outdoors. If appropriate, these clients were prescribed with an EPIC, with view to some being re-assessed for provision of an EPIOC at some point in the future.

Nearly all clients that were not prescribed an EPIOC were refused because of their actual driving ability. In the vast majority of cases, pointers had been identified during the clinical examination, that identified that they may have problems driving an EPIOC safely. In most cases, neurological deficits were the reason for failing the assessment. Most common problems observed were: unilateral neglect, lack of concentration, inability to judge width/distances etc.

Where it was felt that their inability to control the EPIOC was as a result of no previous use/lack of practice driving a powered wheelchair, clients were given follow up training sessions to see if they could progress to the required standard.

Analysis shows, that following assessment, approximately 1 in 5 (20%) of those referred for assessment, were not prescribed an EPIOC. In all cases, this was because it was felt that they would not be safe controlling a powered wheelchair. As mentioned earlier, the potential for serious injury is considerable, if a user is unable to control a wheelchair accurately in an outdoor environment.

In general, it was found that most referrals to the EPIOC Service were appropriate. There were a small number of cases however, where it was felt that the referring therapist should have identified that a client was unsuitable, and therefore should not have recommended them for provision.

PRESCRIPTION DATA

It was found that a high percentage of wheelchairs prescribed were of non basic specification or required some form of modification. In some cases modifications required were minor in nature, i.e. the fitting of wider armrest pads or mirrors. However, a considerable number of wheelchairs were more complex in specification or required more extensive modification or postural adaptation to meet the needs of the user. The fitting of postural seating systems, e.g. Jay seat cushions/backrests was not uncommon. In addition, a number of wheelchairs were prescribed that had reclining backrests, remote joysticks, lowered seat heights etc. At least one tilt in space wheelchair was prescribed, and one fully custom built wheelchair was manufactured for a client who was only 3' 9" tall. The average cost of a wheelchair was approx. £1750, which includes the cost of cushions/backrests etc. Given the medical conditions of the clients referred, it is not surprising that a quite high percentage of the specifications

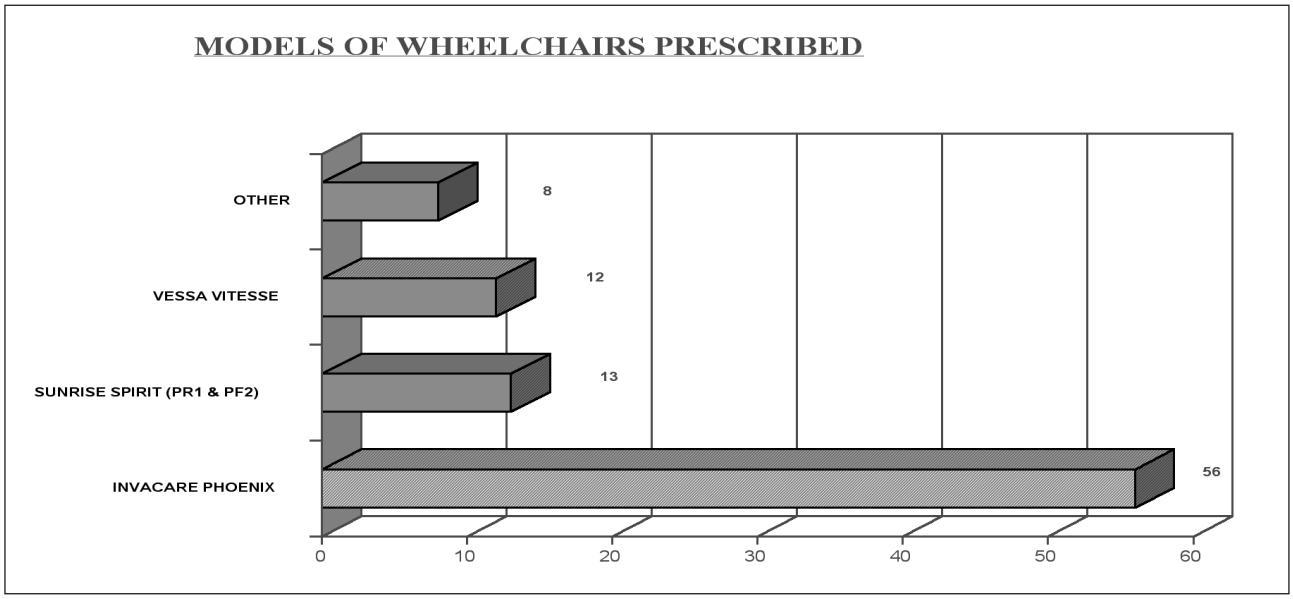


Fig. 2

drawn up, were more complex in nature.

The range of wheelchairs prescribed can be seen in Fig 2 above. As can be seen the Invacare Phoenix was by far the most common wheelchair prescribed. This was because it offered reasonable flexibility (height/width adjustable armrests, reclining backrest, etc.) at a reasonable cost. In addition to the Vessa Vitesse and the Sunrise Spirit, other wheelchairs prescribed included, Newton Badger, Newton Royale, Remploy Powerider, Scandanavian Mobility Harrier MC, Suntec F50 and the R&B Travlla.

CLIENT SATISFACTION WITH ASSESSMENT AND PROVISION

Clients were asked whether they were satisfied or not, with the various stages undergone during provision of their EPIOCs, from the initial screening and home environment assessment, through to the wheelchair hand over procedure. It had been agreed that a satisfaction target of 80%, was regarded as the minimum standard required. The results from some of the questions can be seen in Fig 3.

As can be seen, overall the level of satisfaction was quite high. Most levels of satisfaction were above the aimed for 80% mark. However, the audit identified a number of areas for concern. In particular there was a relatively low level of satisfaction in time taken for delivery of wheelchairs following assessment, where only 52% of clients were satisfied. The average delivery time was approximately 14 weeks. Investigations highlighted that delivery times varied considerably depending on suppliers of wheelchair provided. Some manufacturers had delivery periods 3-6 weeks, but other manufacturers took many months to dispatch the wheelchairs ordered. Another problem encountered at a very early stage was that of staffing levels within the service. The workload generated following initial assessment, was considerable, and this also resulted in delays in handover of

CLIENT SATISFACTION WITH ASSESSMENT/PROVISION

	SATISFIED ?	
	YES (%)	NO (%)
PRE CLINIC SCREENING/HOME ENVIRONMENT ASSESSMENT	85 (93%)	3 (3%)
INFORMATION PROVIDED PRIOR TO CLINIC APPOINTMENT	71 (78%)	19 (20%)
LENGTH OF WAIT FOR A CLINIC APPOINTMENT	68 (74%)	21 (23%)
CLINICAL/MEDICAL ASSESSMENT AT STANMORE	75 (81%)	16 (17%)
DRIVING ASSESSMENT AT STANMORE	86 (94%)	5 (6%)
WAIT FOR W/C FOLLOWING ASSESSMENT AT STANMORE	47 (52%)	44 (48%)
HANDOVER OF WHEELCHAIR	86 (94%)	5 (6%)
TRAINING PROVIDED (kerb climbing/chair assembly - dismantling/charging etc.)	90 (99%)	1 (1%)
INFORMATION PROVIDED (Handover pack)	77 (84%)	3 (3%)

Fig. 3

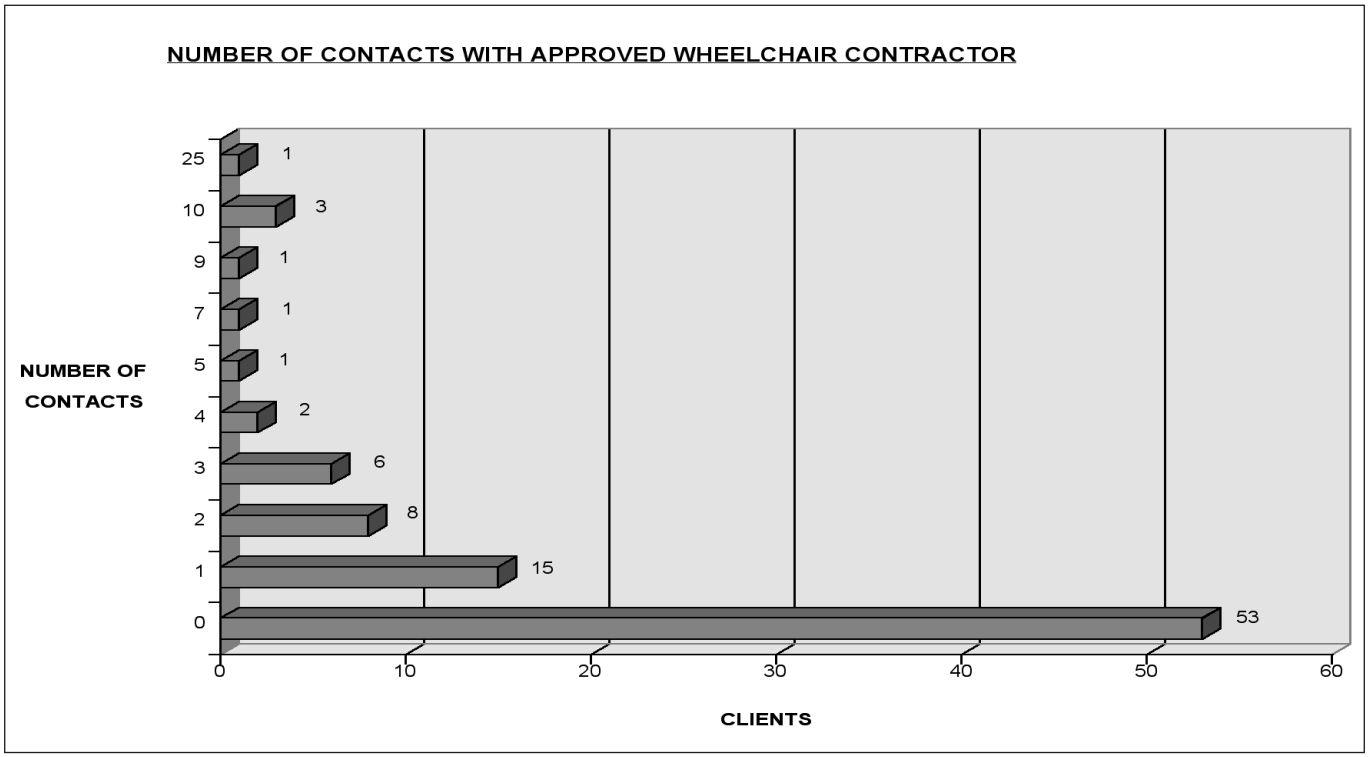


Fig 4

wheelchairs. As a result, after approx. 9 months, RE and therapist staffing levels were increased from 1.0 WTE, to 1.5 WTE each, (note: to the levels originally requested). The staff increases have helped to reduce the waiting times for wheelchairs. Other steps taken, in an attempt to increase satisfaction levels in the identified problem areas have included:

- ⇨ Changes in documentation provided to clients (particularly prior to clinic assessment)
- ⇨ Changes in makes/models of wheelchairs prescribed (to reduce manufacturer delivery times)
- ⇨ The purchase of buffer stock of the most common wheelchairs prescribed.
- ⇨ Not quoting unrealistic delivery times !!

WHEELCHAIR MAINTENANCE CONTRACTORS

The repair and maintenance of issued EPIOCs was initially undertaken by the four wheelchair maintenance contractors employed by the 12 District Wheelchair Services to undertake maintenance and repairs on district issued wheelchairs. From an early stage, the Stanmore EPIOC service began to form the opinion, that some contractors were performing better than others. We were interested to see what the users had to say about the quality of service that their respective contractor provided. In addition, we wanted to determine how often the users were requesting the services of their contractor.

As can be seen from fig 4. above, 53 users (58%) had not required the services of their contractor. One user reported having called out their contractor 25 times in the 4 months between delivery of the wheelchair and the audit taking place!!. (Note: probable dubious response, as no complaint was received from the contractor concerned about the number of call outs made to this client). However, the results of the audit confirmed our major concerns about the performance being provided by one of the contractors (see Fig 5). Contractor No. 1 did not perform well in either their speed of response to a user call out, or the level of ser-

WHEELCHAIR CONTRACTOR INFORMATION

CONTRACTOR	Fast response Yes	Fast response No	Good Service Yes	Good Service No
No. 1	6	8	7	7
No. 2	9	1	7	3
No. 3	6	0	5	1
No. 4	4	4	7	1
TOTAL	**25(67%)**	**13(33%)**	**26(68%)**	**12(32%)**

Problems encountered with some Wheelchair Maintenance Contractors :

- Knowledge of equipment
- Forwarding of information
- Speed of response to requests (to clients and EPIOC service)
- Poor working practices

Fig 5

vice provided once in attendance. In general the other three contractors appeared to have performed reasonably overall. However, the question had to be asked, as to whether the contractors:

1. were operating good working practice/procedures

2. had good technical knowledge of all the models of wheelchair that they were required to repair and maintain

At the start of the second year, the EPIOC maintenance and repair contract, for all 12 districts was awarded to contractor No. 2. The results of the audit were a contributory factor when awarding the contract .

A cautionary tale: As a result of negligent action by one of the above contractors, one of our users suffered an accident which resulted in a leg being broken in two places. Whilst the accident was as a direct result of the contractors actions, it is the EPIOC service that is now being sued. This is because it is the EPIOC service who awarded the maintenance and repair contract, to the contractor concerned. It would be wise therefore, for all wheelchair services to consider carefully, the competence of both their current contractor, or any potential future contractor. In addition are any audits being undertaken?

FREQUENCY OF USE AND LIFESTYLE CHANGES RESULTING FROM PROVISION OF EPIOCs

It was found that frequency of use of the EPIOCs issued, varied considerably amongst users, see fig 6.

The wheelchairs were used outdoor, at least twice a week, by all but 8 of the users. We were also informed by 29 users, that they used their wheelchairs outdoors 7 days a week. Four users on the other hand, stated that they were not using their wheelchairs outdoors at all. This has resulted in follow up visits being made to these clients to determine why the wheelchair was only being used indoors. 5 users told us that they were not using their wheelchairs indoors, and were only using the wheelchairs for outdoor mobility.

The provision of an EPIOC appears to have resulted in major lifestyle changes for some users. Prior to provision, only 22 users stated that they were able to go outdoors unassisted. This increased to 64 users following provision of the wheelchairs. 47 users(51%) said that they had been able to undertake new activities now that they had EPIOCs. The most common new activities were going on shopping trips and visiting friends.

Sixty users (66%) stated that provision of the EPIOC had made life easier for their carers. Some users said that they had reduced the number of transfers required during the course of the day, as a result of being able to use their EPIOCs both indoors and outdoors. Other carers were finding life much easier, as they no longer had to push the user in a manual wheelchair when they went out.

14 users stated that their medical condition had changed since provision of their wheelchair. For some, this had resulted in difficulty operating the controls of the chair. Overall, 13 users (11%) were actually prepared to admit that they had had some form of accident or mishap whilst using their wheelchair. Reported incidents included:

- ⇨ falls out of wheelchairs (no use of seat belts/during transfers)
- ⇨ skidding/losing control of wheelchair (user error)
- ⇨ running into obstacles/people (user error)

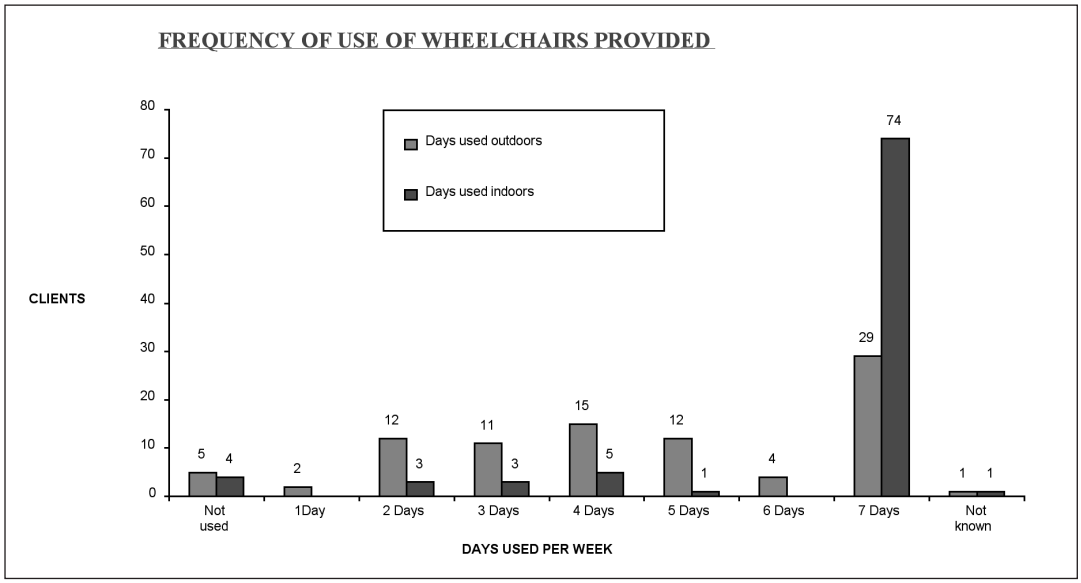


Fig 6

⇨ driving off the edge of a kerb(user error).

The problem with the number of users reporting accidents/mishaps was identified at an early stage, following analysis of the results from the initial 25 audits. In this group, 5 users (20%) had reported having an accident.

Although no injuries were sustained during any of the incidents, the fact that such a high level of accidents were taking place gave great cause for concern. As a result of the findings, a follow up telephone call, 2-3 weeks post handover of wheelchair was implemented, to check that the user was happy with the wheelchair, and to offer further training if required. Results from the latter audits, showed that the number of users reporting accidents was considerably reduced, but still ran at about 3%. Note: It appears that accidents during transfers may still be a be a problem.

The whole problem of potential accidents highlights the issue of planned regular client review, especially of those clients who suffer from deteriorating medical conditions. However, given the potential for serious injury resulting from an accident involving an EPIOC, we believe that review of existing users is highly desirable. This clearly has an implication with regards to staffing levels, particularly as the number of EPIOC users will potentially increase by up 120 clients every year.

PERFORMANCE OF THE WHEELCHAIRS ISSUED

Overall, the EPIOC service has been very disappointed with the level of electrical/mechanical faults of the wheelchairs issued. 40 clients (44%) reported having had problems with their wheelchairs. Problems regarding the mechanical reliability of wheelchairs prescribed, began to give cause for concern at a fairly early stage . Mechanical problems encountered included : control box/wiring loom connector faults, motor/gearbox failures, batteries not holding their charge, footplate failures.

As a result of the problem, a simple fault log was developed, to help give us an idea of what faults were occurring in the field. Failures of control boxes/wiring looms of the Invacare Phoenix began to cause concern at a fairly early stage. The flexibility of the Phoenix meant that we were frequently prescribing the Phoenix, to the extent that it was by far the most prolific wheelchair on issue. We started to get reports that they were 'cutting out' and 'stopping dead', particularly when full speed was being demanded. As a result of our investigations, we discovered that some 4.2i control boxes would 'cut out', if the joystick was extended/pushed beyond its 'calibrated' range. This could happen when relatively little force was being applied to the joystick, or if the chair hit a bump whilst the joystick was in full extension. The problem resulted in a number of individual defect reports being sent to the M.D.A, with a comment that we felt that all 4.2i control boxes could potentially suffer from the same problem. Note: It was found that some 4.2i control boxes fitted to other makes of wheelchair, exhibited the same fault.

The various faults exhibited by the different chairs, resulted in other makes/models of wheelchairs being prescribed. At one stage, no wheelchairs fitted with the 4.2i box were being prescribed, as the problem with them cutting out was regarded as unacceptable.

Our experiences have led us to believe that wheelchairs prescribed should be monitored, to see how they perform in service. The initial purchase price of a wheelchair is not the only factor that needs to be considered when deciding which wheelchair to prescribe. In addition to meeting clinical needs, the 'whole life' costs of keeping a particular wheelchair in service, including maintenance repair costs etc. need to carefully considered. This is particularly important if an EPIOC service places 'bulk orders' for wheelchairs.

FUNDING ISSUES

It was noted at the very beginning, during the planning stages of the EPIOC service, that there would be a potential problem with future funding of the service. The cost of maintaining and repairing the wheelchairs already in service will increase each year, in direct proportion to the number of wheelchairs on issue. In addition, the life span of any wheelchair is also limited, (investigations suggest approx. 5 years on average). It seems logical therefore, that at some point, the cost of replacing or maintaining the existing fleet will become so great, that there will be no money left for the issue of wheelchairs to new clients. To test the theory, a spreadsheet was developed showing the potential expenditure on existing users wheelchairs. Assuming that the predicted average life expectancy of an EPIOC is indeed 5 years, problems are envisaged in year 5, when a large number of existing wheelchairs will need to be replaced. see fig 7.

It was found that when the figures were carried forwards, there seemed to be a point where the figures plateau off, and approx. 80 % of funding goes towards replacement/maintenance of existing wheelchairs, leav-

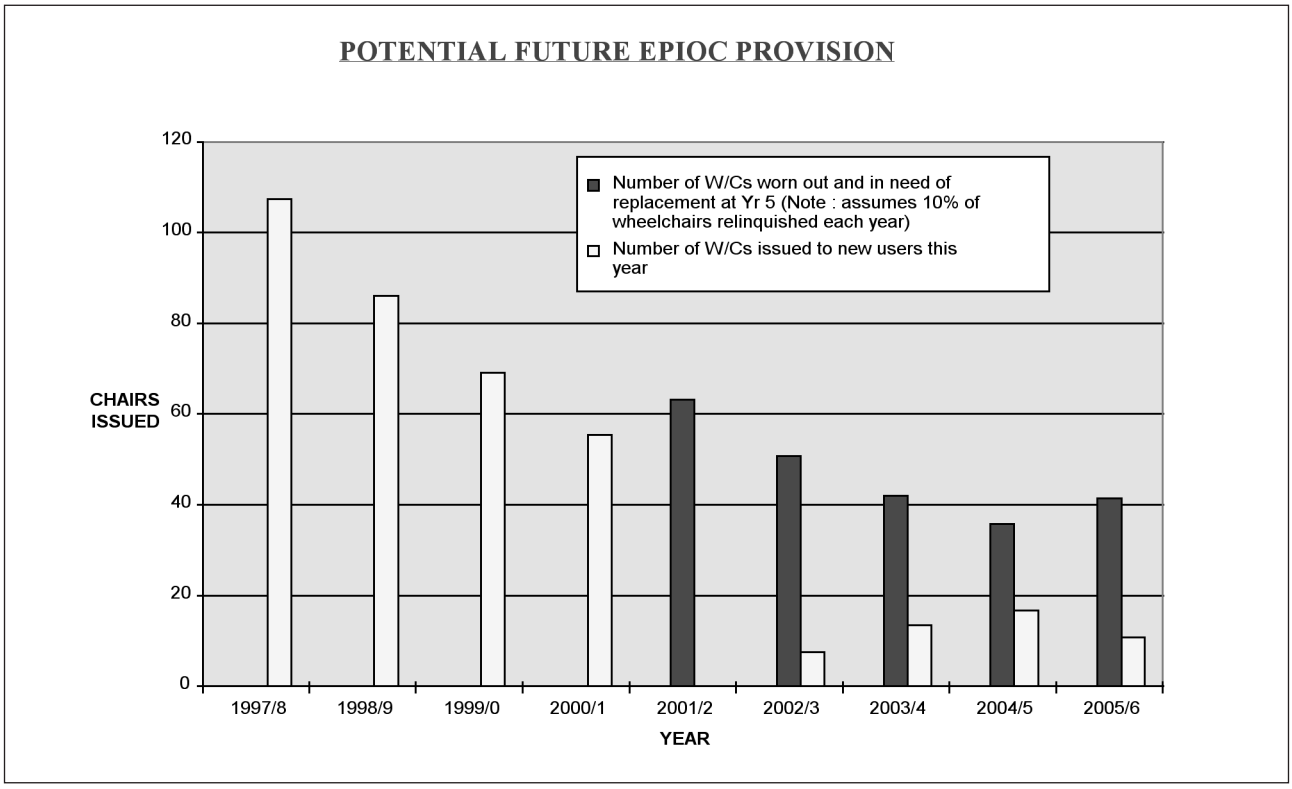


Fig. 7

ing the other 20% for the funding of wheelchairs for new users.

Although the model is somewhat simplistic, it is believed that the problem will still materialise.

CONCLUSIONS

The duty of care to our users, and the need to protect both ourselves and our employers from potential litigation, means that all areas of potential weakness have to be identified and corrected if at all possible.

The telephone interview process has proved to be an extremely useful audit tool, the results of which have enabled us to improve the quality of service provided to our clients. The data generated gave strong indications as to the strengths and weaknesses of both the internal and external factors affecting the quality of service provided.

Changes were made in the processes and procedures carried out by the service, along with changes in the documentation being provided to our clients.

Our suspicions were confirmed regarding the fact that the mechanical reliability of some wheelchairs supplied was well below acceptable standards. The nature of some of the faults recorded, also led us to believe that they may have had, or could have had, detrimental medical implications to the users concerned.

Also highlighted, was the fact that the performance of more than one wheelchair maintenance contractors, undertaking work on our behalf of the service, was also below the desirable standard.

The success of the audit means that it is going to continue, although it may be modified somewhat, to meet the future needs of the service. However, we believe that audit cannot and should not replace the need for continual planned review of clients using outdoor powered wheelchairs, particularly those suffering from deteriorating medical conditions or conditions affecting the brain.

Jon Ward with special thanks to Mike Hall
Rehabilitation Engineering Manager

Contributions by :

Mike Hall *(Rehabilitation Engineering Manager, Posthumously - see elsewhere in newsletter),* Dr Andrew Frank (*Consultant in Rehabilitation),* Nicola Orwell *(Occupational Therapist),* Mike Belcher *(Occupational Therapist)*, Collette McCulloch *(Occupational Therapist)*

A PERSONAL VIEW OF HOW I LEARNED TO LOVE THE BOMB.

The Consumer Protection - Medical Devices Regulations SI 3017 l994, burst on some people like a bomb, either late last year or early this. For the months leading up to June a number of Companies and Organisations went into purder whilst they sorted their products out. Which is strange since the June '98 deadline had been trailed extensively for the last five years. As a result in some quarters the Directive was thought of as a 'bad thing', but by me.

EUROPEAN WIDE COMMON STANDARDS

First thing to understand about the Directive is that its primary function is to remove the barriers to trade. To do this it must set a 'level playing field', this is done by all the manufactures and suppliers throughout Europe working to the same standards. This is a good thing, I can remember when useful pieces of European equipment could not be supplied because they did not meet the British Standard, this problem has now been resolved. No more unknown seals of approval given by bodies who could have been the equivalent of the British Kite Mark of the Batley whistle testers and wheel tapers for all I knew. Now one universal set of standards apply.

This also applies to the way a piece of equipment is described, now there are fewer ways that the manufactures can be 'creative' in their descriptions of a product. I am always put in mind of a cautionary tale told by country men. A man went to buy a horse from a dealer it was a bit cheaper than he expected but it appeared sound of wind, strong and had good teeth just as the dealer described and the deal was done, on getting the horse home he found that it was nearly blind and could only perform in its known environment. The man returned to the dealer and said 'you never said that horse was blind!' at which the dealer said 'you never asked me.'

IT HAS TEETH

The second thing to realise is there is not a lot that is new in the Directive, most of what it says has been previously covered in earlier Legislation, such as the Consumer Protection - Product Liability Act 1987 and the General Product Safety Regulations 1994, Our 'Duty of Care' together with other guidance from the M.D.A., Quality Assurance procedures and good 'custom and practice'. So what was special about the Directive that got every one moving? This time it has teeth, the Legislation appointed a specific body (the M.D.A.) to oversee the legislation and that prosecutions would take place if the Directive was breached. This Directive has in effect its own police force. Just think about it, who took action before when a Manufacture would not comply with the contract or was vague about a specification? This then another good thing the real fear of prosecution has brought about action by the manufactures to get things right.

Be careful, this can also work the other way to, the M.D.A. can prosecute us, so this makes sure that the Service does its work correctly as well. I know I have had to revise my working practices and included risk

assessments on a regular basis, I know this is a chore but it is better for me that I do it, better for the client and the Service.

BETTER PRE SALE INFORMATION

To return to the manufactures and suppliers, they have taken a hard look at their products and what they write and say about them, and at last we are getting a more balanced description given in the sales brochures and talks. Common standards mean it is easier to compare two products. Now that a Company has to go to print and will be held accountable for what it says they are actually been more specific about what they mean. It has been interesting to see for example the companies that have been saying for years 'yes you can clamp our chair on transport', that are now coming up with additional qualifying statements, like 'only if you fit this special adaption kit' or 'if you only use this particular attachment'. The Directive now ensures that each Manufacture and Supplier will have to tell us in advance, the specifications and performance of their products tested against a common standard.

BETTER PRESCRIPTIONS FOR THE USER

It also means that we are to look more closely at what the manufacture does say about their products before deciding if it suits a particular clients needs, and a certain amount of risk assessment will have to be done with each prescription. This is only good practice and such careful assessment has been advocated in Safety Information Bulletins for some time. So as well as getting the Manufactures and Suppliers to get their

paperwork in order it also gets us to do the same. By ensuring that we are doing things correctly and by employing good practice the result should be a chair more suited to the clients needs. Because we are getting better and more pre-sale information we are able to make better judgements about what is on offer.

BETTER POST SALE INFORMATION

The directive is very clear about the information the manufacture should give about the product and in what form, now the chairs have user manuals and chassis plates. The plate for example has to give the maximum occupant weight, this information has not always been easy to get in the past, and some tines when a 'special chair' has been in service for a while it has been difficult to find out what its user weight limit was. We have the added protection in the form of a users hand book which supports what we teach/show the client on hand over, so the old claim of ‘nobody told me’ is less likely to be upheld. The hand book written by the manufacture with his particular product in mind is better than a general purpose one so often issued in the past.

After years of polite requests to Manufactures and Suppliers for Technical Manuals and Parts books with little success, despite what it says in N.H.S. contracts, my book shelves are now filling up rapidly. I have even had to request another one. With this information our Repair Contractor and ourselves are able to give our users a better service in the repair and maintenance of their chairs. I also get the impression that some Manufactures now have Technical Manuals and Parts Books for the first time even to their staff. Now we can all use a common parts list, it is more likely that we will get the correct part or accessory from the Supplier than it was a year ago. I have know as many as five different items sent before getting the right one when ordering by description. Think about what you or your Service call the ‘toggle’ that lifts the plunger in a hinged back rest and does you neighbour and all your manufacture call it by the same name?

TRACEABILITY

This a cornerstone of good Quality assurance. The Directive makes it clear there has to be traceability, the usual way for this to be done is to have a unique number for the chair, this enables us to know where any one chair is at any time. My own particular nightmare is to pick up a Safety Notice that says all 9L's made between 1988 and '91 have to be checked for a serious fault. Where are they? It would be not so bad if the notice referred to all one type of product that you have, when you have a lot of them or a batch when you have a few of them. But a large batch in a larger fleet going back far enough for them to have been reissued three times is as I say my nightmare. With the traceability comes a products service history it becomes easier to compare similar products for maintenance costs, reliability and service life, long term value for money, all too often this became disjointed as a chair went back into stock and was then reissued.

PREVENTATIVE MAINTENANCE, ANNUAL SERVICES AND OBSOLETE EQUIPMENT

The Manufacture and Suppliers are now to give guidance about how often a product should go between services and what should be done at these services. I have know chairs come in as complete wrecks, that have not been seen by any one from or representing the Wheelchair Service for three or four years. Supposing it just collapsed and injured the user? I don't think when asked what our maintenance program was, the reply of 'we left it up to the user to contact us' would go down well in today’s courts. Yes I know it is another chore and more short term expense, but to get the maintenance contractor to check all the chairs in accordance with sensible guidance can be beneficial, if it is approached as a planned preventative maintenance procedure it will ultimately benefit all of us. Apart from the reduced risks of prosecution, better maintained equipment lasts longer and ultimately costs less to run over a average period. It also brings to light those ‘Unknowlegable users’ (I think that's the current euphemism) earlier and hopefully we can increase their 'knowledge' before they wreck too many of our chairs. Knowledge of how long a piece of equipment has been in service, and how much of that tine it has actually been out on issue and what sort of wear and tear it had when on issue, together with a Manufactures recommended service life can give us a good case for replacing old and worn equipment. This year one of our users gave up her Model 1J, I know some of you will have never even seen one. Our records show she had it over 40 years and the users tells me it wasn't new when she got it. I would have been quite happy to see her going on using it if she had wanted to. It was being used in two rooms only and hardly ever needed a repair, mainly re-doing the upholstery, it was so solid and heavy that unless it got attacked by termites it would have lasted longer than she would have needed it. Alternatively, I have model 8L' s and 9L' s returned that I estimate to be at least 15 years plus and possibly over 20 years old, averages tell me they could have had as

many as 7 users, and I have no idea if the chair has had easy or hard life. Without evidence, I view these old returned as a potential hazard, the accountant sees them as another fame for cheap refurbishment that saves us the cost off a new chair. Proper traceability and service history will give me the evidence to say this chair has come to the end of its serviceable life, even though in practical terms I can still get parts and repair it. Added to this I have seen to many chairs bought by other departments without any form of costing for maintenance, many of these chairs are kept going by cannibalising others, this has never been a safe option but a cheap one in the short term.

CONCLUSION

The Medical Devices Directive may or may not result in a better product, but it increases the range of products we can buy and speeds up importation of products from other E.C. countries. We are more sure about the standard off the product and because the manufacturers are Working to the same standards this makes comparisons easier. Also more and better pre-sale information, enabling us to make more informed choices and comparisons at the prescription stage, results in a more suitable chair for the user. It also means that I have to employ better working practices when I do my work. Assume less and find out more. Do a risk assessment but this is again to every ones benefit.

The 'Traceability' that comes with each chair makes recall easy and means I can easily have a life time service history so I can make judgements about the over all cost of the chair not just its initial purchase cost comparisons with other chairs. Also the reliability of one manufactures product against another. Planned preventative maintenance with the manufactures guidance. Now we will find it easier to explain to others why we need a maintenance budget, in the past it has been queried on the grounds that other departments don't have a maintenance budget. Having secured a budget for planned preventative maintenance we can do it, which will be another benefit. Finally we can build a case for scrapping old if not obsolete equipment by being able to prove it has come to the end of its serviceable life whilst another chair that was bought at the same time can remain in service by being able to prove it has not had such full use over the same period.

Michael Hare
Rehabilitation Engineer .

In light of these first two articles, would any one like to comment on the prescription of EPIOCs without a full assessment on the assumption that because they can drive a private EPIOC they are eligible for prescription of an NHS EPIOC? I have heard that this practice does exist

Phil Swann.

First clue:
The company knows exactly what Fredrick is like.
Page 20 for second clue
Page 31 for answer

RARE '98

The meeting for 1998 promised to be inspirational, exciting; well supported by 47 manufacturers and suppliers, with an exhibition hall large enough for this purpose, but at times a bit of a squash for the delegates. The level of information available, was good, representatives knowledgeable, established and new products on display, with RE's able to look, touch, and ask questions on engineering and clinical aspects.

The first morning session 'Equipment' chaired by Simon Fielden with presentations on Postural Care at night from John Goldsmith; Holistic Approach to Wheelchair Users & Carers from Julian Cobbledick; Adaptive Prosthesis from Steve Lang; Integrated Systems presented by Colin Clayton.

John presented information gained from a project mounted in Mansfield, managed by A Peters, and Liz Hewitt, where they were looking to identify children at risk, to register, identify funding, suggest equipment, and review post delivery. One of the issues that were examined was the importance of postural support to maintain the correct positioning at night. This has been calculated by John to be 4000 hours and so a prime time where the effects of postural management can be assessed, examined, and reviewed. John also presented slides on elements of care; therapy, postural, and family workshops. The outcomes of the postural management routines are evaluated using the Goldsmith Index, developed by Liz Goldsmith. For the period of the study there was only one incident of pressure trauma. The support system is based on a flat mat which acts like a mattress overlay which has alignment marks to aid the positioning of the various wedges, rolls, half rolls, and blocks.

Julian Cobbledick presented his thoughts for this time of change, a sense of being at a watershed where the importance of holistic approaches are thought to be ideal. He qualified these profound thoughts by some comments gained form users and carers. Provocative discursive on "the loop of Doom", and "Circle of Pleasure" led on to objectives of maximising cost effectiveness; wellness and function; achieved by holistic approaches; methodology including team analysis, specify goals; deployment of equipment; awareness of real treatment costs.

The roadblocks to this aim are departmentalization of finance, lack of case studies, fatigue of current system, and the age old conflict of protectionism against change.

A possible way forward included controlled study of groups, work with current evaluation studies, managed care. Comments from the floor included observations on taxation levels, in different countries affecting available resources; also the availability of equipment for users.

Steve Lang, Design Engineer of CA Blatchfords presented the Adaptive prosthesis by introducing study of locomotion the residual limb is a dynamic platform for the prosthesis which aims to replace, in some measure, the ablated limb. The prosthesis should give as near normal performance characteristics for most locomotive needs. These aims are achieved by programming stance control, preset stumble control, programmable swing phases control, and extension cushion. The hybrid design, allows interface with existing limb componentry, with control functions given over to microprocessors. The programming device should facilitate easy adjustment, be accessible for adjustments when the limb system is in use. Updates in software should be easy to load, and use. The system should be complex as needs dictate.

The sequence of supply includes fitting; socket, alignment, datum for limb system. The programming sequence includes setting of pneumatic and hydraulic pressures, dynamic alignment, walking on ramps, stairs. Taking a series of steps to establish the kinematics of gait.

Outcomes of the preliminary study shows that there are 2 active limb users, with a further number of users reporting back that they found the adaptive prosthesis to have elements found in free knee systems. The adaptive prosthesis gave more stability in descending ramps, and overall gave increased confidence. One year on, post introduction, there are 10 more users for case trials, a further 25 units going to trials, monitor the effect of voluntary control. Extensive biomedical evaluation, including assessment of amputation, aims to provide an adaptive prosthesis for all categories of amputee activity.

Colin Clayton of Wolfson Center showed what can happen when an integrated system refuses to function cleanly; the projector did not want to show the Power point slides! He did continue bravely and give an interesting presentation on integration of systems in use with environmental controls, mobility equipment, computing equipment; concentrating on access issues harmonizing on users skills. For the system to be most enabling, characteristics for performance must be set which can only follow careful assessment.

Relevant issues include technical support, access to user groups; supply of bespoke systems, designed to meet individual needs which may not be readily available in commercial systems. So, on to the WISE DX System which is an integrated system with up to six (6) switches each with single or multi function to give enhanced flexibility. The software is menu driven under Windows which has been designed to allow screens et up, real time proof running on screen, with down link to hardware.

Comments from the floor included the thorny problems of ownership and funding of systems. The line from Colin 'Effective integrated systems allows access without compromise' sums up this project very well.

The late am session 'Service' was chaired by Derek Watts with presentations on; Orlau Gait Analysis System from Peter Woollam, Electronic Assistive Technology (EAT) @ Aintree from Dr. Emlyn Williams, Pilot Audit of EPIOC Provision from John Ward.

A very interesting presentation on the possible use of a powerful tool for gait analysis in prosthetics, Orthotics, orthopedics, podiatry. This portable service offers kinematics with 3D and 2D movement data acquisition from force plate and camera's; kinetics offering six (6) component force platform to show ground reactive forces. There was an interesting video showing an Orlau video vector generator which produces a superimposed vector on a video image of a subject, with other presentation of normal and pathological gait. This new transportable system offers a regional assessment service, which, for a price, can be used as a powerful clinical tool. Set up time is said to be one hour, which includes calibration. Other comments from the floor prompted the response that the achieved accuracy was good, alignment of the vector was better than 1%, throughput of up to 5 clients per day depending upon case histories, all documentation provided, and any videos taken remain with the Center which will be in VHS format.

Dr. Emlyn Williams presented EAT at Aintree which reviewed the progress and development of EAT services within the region or NW England. Key points were complete medical assessment from medical consultant, and available equitable products, the key phrase being that modern technology should be used to advantage. Reviews of activity figures showed that there has been a steady increase in systems where in 1997 585 systems were installed which equates to 88 per 1M population. The main problems that were identified were communications aids, community access, switching, wheelchair controls. The solutions found were that Ace Center provided comm. access, community access by Ability Net, switching from in-house personnel, wheelchair controls with DSC liaison. The staff includes in house 3 engineers who are tasked to liaise with oversee work of EAT suppliers, develop innovative solutions, and offer unbiased technical advice. Technical advice given readily, mods to existing equipment, development of new solutions. This user centered bridge organisation between NHS and Social Services, tasked with a wise use of funds, and to harmonise service provision.

John Ward of Kings Healthcare Rehabilitation Engineering Division presented the pilot audit of the supply of the new NHS provision of EPIOC - Electric In-Out door Powered Chair. See page ** for full article.

Lunch, always important for networking. Good food, nice coffee and more exhibition time, but never quite enough to catch that rep who has promised the earth, but not quite delivered.

The afternoon session "Professional Issues" was chaired by Rene Parison, with presentations on Clinical Development for Clinical Technologists from David Burrell, Survey Evetsin from Scott Bowring, Risk Analysis procedures for Adaptations from David Rogerson, and regulations for Repairs and Reconditioning from Alan Lynch.

David Burrell began this presentation by outlining the background of the merger between the IPEM and the BES giving introduction into state registration for groups. These identified that there should be clearly identifiable education and training pathways leading to a defined point at which they become eligible for

registration with IPEM. David gave an overview of entry points for training policy and structure. Bench marking principles will be applied to work group practices, education and training policies. Mentoring should be available from professionals within the organizations on the grandparent principle. The aim is complete these proposals by 2001. Continuing Professional Development was underlined as crucial to work groups and individuals. It was introduced into the IPEM in 1996 starting with Clinical Scientists, 1997 saw the scheme approved by the European Community, and in 1998 the scheme was expanded to include clinical technologists as a pilot scheme.

The activities would support the aim of developing scientific and technological knowledge broadening scientific and technological knowledge beyond ones skill. The benefits of networking were discussed with regular meetings, special interest groups (SIG's), newsletters, placement circulars which all lead to policy statement.

Project Evetsin was introduced by Scott Bowring which is a project set up by the Dept. of Health briefed to look at scientists in the NHS. It was primarily aimed at graduates, but lowly MTO's were also included. The presentation gave impressive figures and large amounts of data which will not be duplicated here, but I'm sure that Scott will be happy to forward copies of the data if you're interested. I have to admit that Evetsin did not hold my interest as it seemed to be aimed at scientists in the NHS, and those primarily with degrees.

David Rogerson, a Rehabilitation Engineer from Hull Medical Physics Service presented his groups thoughts on their procedures for risk analysis. The service is district based, will accept single or multi district referrals, but has no regional center. RE's started regular informal sessions for networking and information sharing, peer support, and airing grievances. David presented their thoughts on CE marking and the effect on adaptations. samples of forms were shown, which were reviewed as they were used. Importance of proof of identification for users was found to be crucial. Identification of risk, level, type, professional or personal; level of harm that could occur; probability of incidents leading to solutions.

Review of the design processes were explained, with the need for review being crucial. This talk illustrated how one regional group were dealing with the rigors of Risk Analysis; one hopes that they try to not reinvent the wheel.

Alan Lynch of Medical Devices Agency introduced the latest thoughts on the reconditioning of wheelchair, and how CE marking affects this process. To fully refurbish is mentioned in the Medical Device Directive, but has no clear definition, with a view that fully refurbished equals fully reconditioned.

There is guidance to be published to distinguish refurbishment from reconditioning, i.e. repair and maintenance, with no possible effect on CE marking. Repair and maintenance can be defined as 'to maintain in good and safe operating condition by maintenance contractor and any other'.

Full refurbishment occurs when a device is completely rebuilt or made as new from other used devices, and is assigned a new and useful life.

A device is fully refurbished and subsequently placed on the market when it involves:

- ⇨ stripping to component parts or subassemblies
- ⇨ checking suitability for reuse
- ⇨ replacement of components or sub assemblies not suitable for reuse
- ⇨ assembly of reclaimed and / or reclaimed parts
- ⇨ testing of assembled device against original or new criteria
- ⇨ identification could be new Ser No or Lot number

Placement on the market as a new or fully refurbished device and name of the persons responsible for the refurbishment, without changing the intended use, then it comes under MDD regulations.

I have to comment that this report is difficult to complete as the slides were being changed too quickly. However, Alan may be able to supply copies of this important and very useful guidance if asked.

Where there is no CE mark, the Consumer Protection Act 1987 applies, as the main legislation

The MDA is currently looking into the repair and reconditioning activities via SN 9801 reports of Potential for injury or deterioration in health.

One gem shared with the group was that if the term refurbish is dropped from use, the term repair can be

used in it's place. Repair only could become invalid when the device is broken down to constituent parts from the whole.

Questions / comments from the floor:

? What is the exact specification in the reconditioning contract

? Who ensures that it is carried out

? Who reviews and updates the contract specification on results of investigations

? When OEM does not supply the technical information, where does the repairer stand.

A Why repair when you don't know how to do it!

Tony Welling

Rehabilitaion Engineering Manager, Kings Healthcare @ Brighton

Where's The Pressure?

This one day course sponsored by BES rehab Ltd. & Vista Medical was presented by Canada's own physical Therapist (physio - to us) Vern C. Taylor. Despite some lecture theatre problems which beset the day, Vern Taylor did not deter from enthusiastically presenting the subject in an entertaining style. His opening introduction was around his Canadian experiences, however we soon realised that the common problem of lack of resources was very familiar. His message was quite clear - we should be the advocates and educators regarding seating/positioning and pressure care.

Using a study in Canada (where else), from 1,000 clients -113 had a pressure sore, consuming 2/3 of the budget. Prevention is the key and the push will come from Accountants, not Medics, as the cost of attempts to 'heal' pressure sores outweighs the cost of prevention. The lead, as usual, is coming from the USA through their health insurance companies.

The main focus of the day was the use of pressure Mapping. However he ably revised our knowledge of pressure problems and why they exist. Pressure comes from human mass and not the cushion/seating system - this is only the end result! It was felt that there are not enough objective clinical tools available and so pressure Mapping was developed using Computer Technology developed from the Canadian contribution to the `space shuttle' programme. His demonstration of the technology with a volunteer wheelchair user was informative but, by his own admission, brief - an initial assessment should ideally take 2-3 hours, with regular follow up. Also, his archive records were fascinating as we were able to watch clients progress.

Then followed a lengthy discussion around comfort, compliance and the problem of compromising function, concluding that discomfort can be structural i.e. positioning and not pressure. Mentioning tilt-in-space, the speaker informed us that the tilt has to go beyond 45 degrees to redistribute pressure to the back, but the ideal is a tilt and recline i.e. tilt to 30 degrees and then a recline would relieve pressure off the buttock - the back also needs to be able to move up and down to accommodate. At present, no method of measuring shear is available, however they are working on this in Canada!

In conclusion, tilt prevents shear and there is no bad cushion!

Krys Jarvis

Shropshire Wheelchair Service Manger

Anyone wishing for more information with regard to shear or pressure measurement may contact Barend Ter Haer at BES Rehab Ltd tel 01223 882105

Empowering Partnerships
25th & 26th January, Stakis Hotel, Northampton

A casual suggestion from Alan Lynch (MDA) at the National Wheelchair Managers' Forum was taken up by their committee and with the support of both emPOWER, the national Users' consortium and the Department of Health this conference was launched. Additional input came from members of the British Health Trades Association (BHTA), resulting in an interesting two days which clearly demonstrated the philosophy of partnership working in practice.

John Hutton, Health Minister, opened the proceedings by highlighting a number of initiatives being taken by the government in the field of 'disability'. There was some disappointment that in many cases he referred to elderly people for his examples and this was picked up by one wheelchair users in the audience who quickly pointed out that many disabled people were young and wanted to be active. 'Joined-up' thinking, working, services and examples of good practice illustrating closer working of users with professionals were quoted by several speakers and in workshop discussion groups. Concern was raised by Joe Hennessy of MDG and vice chairman of emPOWER, at the level of inequality of service provision, budget levels and range of equipment on offer for Users.

Clare McKenna, lecturer from Brookes University and project worker for the Department of Health Training Framework, updated delegates on the progress of this work, whilst Sheelagh Richards, Therapy officer at the DoH referred to the review of the EPIOC and Voucher schemes, being undertaken for the NHS Executive and Department of Health by a research team from York Health Economics Consortium and due for completion in April. She warned those present that underspend could well be lost or re-distributed in the year 2000 - the decision would take the results of the review into account, but the Minister would make the final decision as to how any funding would continue. Chris Fullerton of Invacare, spoke on behalf of BHTA outlining their commitment to improving wheelchair provision and their growing involvement with service users and providers.

The most **provocative speaker** was a **Commissioner from Leeds, Ian Cameron**, who, in his opening remarks, asked those present 'Why should wheelchair services get priority?'. For Health Authorities struggling with overspends running into millions of pounds, this is a fair question. However his following comments were supportive and positive, emphasising the advantages of providers working closely with both Users and purchasers, though as he rightly pointed out, PCGs may be taking this role in the future. There had been earlier reference to PCGs both by the Minister and in discussion, and there remained a lack of clarity as to where wheelchair services sat in the new structure. Advisory documents to PCGs list a number of 'special' services that will continue to be contracted by Health Authorities. 'Specialised wheelchair provision' is amongst those listed but it was unclear as to whether this was intended to be 'special seating' or all wheelchair provision. It is hoped that this point will be clarified before too long. In conclusion, Mr. Cameron stressed two points. Firstly that Wheelchair services were a priority to HAs as out of 8 sets of returns demanded by the DoH, two (a quarter) related to wheelchair services - voucher and EPIOC figures. Finally he advised wheelchair service managers to make sure that they have a voice on PCG committees. This could be difficult to implement as therapists may well be are aware that they are not amongst the professions listed to be part of PCG boards, though in some areas, namely Leeds, they have been co-opted on to planning committees.

A series of workshops addressed topics such as Users groups, the value of vouchers, the progress of EPIOC provision as well as future developments proposed in the Millennium programme presented by emPOWER together with their Charter for Wheelchair Users. Each workshop was invited to suggest 3 areas of action for 1999. The conference organisers have indicated that they will endeavour to find ways to activate these proposals during the next 12 months. This will not only require 'joined-up' thinking but hardwork by all.

Requests for the conference to become an annual event was evidence of its success which was in no small part due to Maggie Winchcombe of DLCC and her assistant, Richard, who are to be congratulated on 'getting it all

together' in such a short space of time. (NB. The conference organisers are planning to publish a conference report with abstracts and workshop recommendations.

Patsy Aldersea
Occupational Therapist Merton and Sutton Wheelchair Service Manger

*em*POWER'S campaign off to a flying start

emPOWER's recent House of Commons reception (November 1998), was a great success. That is the verdict of the many high-profile guests who have written in to thank Sam Gallop. emPOWER Charity Consortium Chairman, for organising a truly memorable occasion.

Launching emPOWER's two Charters for Users of Wheelchairs and Users of Prostheses and Orthoses, Sam told an audience of Ministers, MPs and representatives of various disability and healthcare organisations, how much users valued the partnership approach. "This was the key to meeting users' needs", he said. He was delighted to hear both health Minister, John Hutton MP, and Minister for Disabled People, Margaret Hodge CBE MP, endorse that view, which also underpins emPOWER's Millennium Agenda for Independence.

This is a programme for action to address the expensive variations in the quality of disablement service provision. emPOWER is campaigning for the creation of a national Disablement Services Agency to address this unacceptable situation.

And although there is much work to be done, Sam was heartened by Margaret Hodge's commitment to "cross-Government synergy" between the Departments of Education and Employment, and Health. Stressing the need for users and Government to work together, she highlighted the investment going into supported employment, Access to Work and Welfare to Work. Meeting needs in both the health and employment fields must be based on a "user upwards rather than professional downwards" model.

To coincide with the reception, its host and Secretary of the influential All-Party Disablement Group, Roger Berry MP, tabled and Early Day Motion (a form of Parliamentary petition). This has already attracted significant support, evidence that MPs understand why the Charter is so important and are keen to help lobby Government.

Kevin Shinkwin
Secretary to emPOWER Steering Group

Second clue:
Promoting Fredrick is part of a cunning plan.
Page 24 for final clue
Page 31 for answer

HELPING GRAVITY HELP YOU

Last autumn Tom Hetzel carried out a lecture tour of England sharing his expertise of how to assess clients to provide the most conservative and intervention-free seating and positioning solutions possible. To achieve this, a good understanding of the biomechanics of the human anatomy is required. In this article I have tried to summarise many of the excellent principles proposed. Those who attended the courses, universally came away saying how much they had enjoyed the course, and several months later are still admitting that Tom has permanently changed their approach to the way they treat their clients.

Gravity is our friend, time our enemy

If the aim for our clients is to minimise the use of secondary supports, then we should look to making the best possible use of gravity, rather than seeing this as a force against which we have to compete. After all, without gravity none of us would stay in our seats at all. However, for gravity to work positively for us, we need the system to be in balance.

Balance can be defined as getting the centre of mass situated over the centre of the base of support. If we take a pyramid, following this definition, we can get this to balance on either its base or its tip. The latter, though, gives the pyramid more degrees of freedom. Taking this analogy to the wheelchair user, we can fix the user down onto a very stable base and forfeit freedom, or take the opposite tack. This article looks at how we can approach the latter while still leaving the client in his or her chair, and with the minimum of secondary support.

How important is symmetry for correct posture?

How should we define 'correct' posture in the first place? Any posture can be considered 'correct' if it is comfortable, if it is functional, and if it can be moved away from. As we said at the start "Time is our enemy". If any one posture is maintained for too long it will give rise to problems, be they with the skeleton, tissue viability, or physiological functions.

Time and again we fight for a symmetrical upright aligned position as being the correct posture for wheelchair users, our children, or anyone else we can exert an influence over. Is this what we should be doing?

Lollipop sticks and marbles

As a graphic example of the principles of balance without secondary supports, Tom Hetzel uses the following exercise.

1. Take one marble and balance it on one lollipop stick.

This is best achieved by placing the marble on the broad flat side of the stick. This can be done, but allows the marble to move rather freely in any direction!

2. Take one marble and balance it with two lollipop sticks.

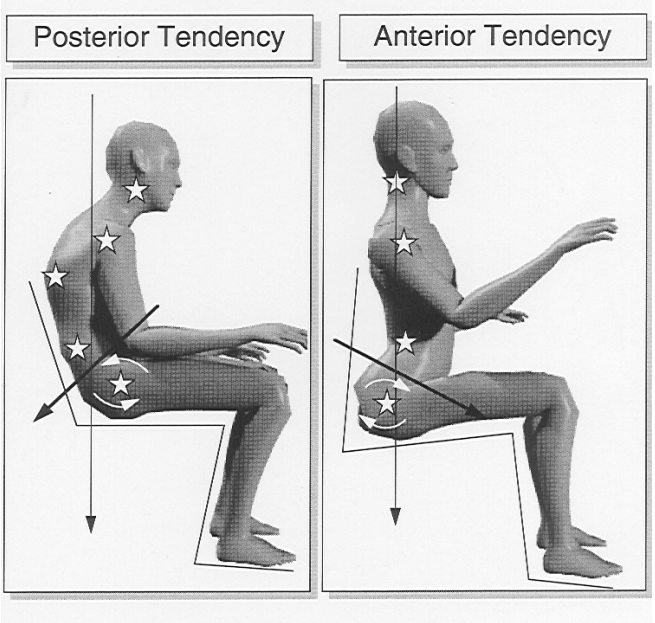
Most people will set the two sticks at right angles to each other along their long sides. This starts to control the marble in two dimensions, but still leaves too much freedom in the third dimension as the marble rolls along the trough. Some will put the two sticks into a V-shape and fix the marble between them. However, perhaps this degree of restraint is not what we wish to achieve! A third approach is to bend the second stick in the middle, and place it on the first stick. This 'cradle' will support the marble in three dimensions without restraining it. This is the approach we are seeking: using gravity and primary supports, without restraints.

Let us try a couple of experiments with our own bodies. First, standing in a good symmetrical position, flex your spine and see how far down your legs you can reach. Now stand on one leg and try the same. Was the amount of flex more or less? Secondly, sitting on an upright chair with a flexed pelvis, and your knees bent, see how far you can flex your spine. Now try the same with a) your legs straight, b) with your legs straight and crossed and c) with your arms folded. Which allows the least flex of your spine?

From these experiments you will probably have found that the more asymmetric positions have given the greatest stability to the spine. Many clients, for example those with athetoid CP, use asymmetry to gain the best spinal stability so that they can maximise their function. Efforts to achieve in a chair a permanent symmetrical position with bent legs are not contributing to maximum function for these clients. What we need

to achieve is symmetry for rest, while allowing departures into asymmetry for function. Try pushing yourself right back into the right angle of your upright chair: with your back support this vertical, you will be finding yourself pushing out your feet to gain stability. Likewise CP and other extension tones are often responses to the client's postural supports not being set up properly.

The pelvis as fulcrum



We are taught, rightly, from early on that getting the pelvis set up correctly is the basis of good seating and positioning. But how are we going about this? We all have natural tendencies in this respect. For most of us we tend to slump into a **posterior pelvic tilt** when we relax, and most seating does little to stop this. A canvas back on a typical chair encourages this posterior pelvic tilt.

What does this posterior pelvic tilt lead to? First, there is a tendency to slip out of the seat. It is then friction and shear which holds the individual in the seat. The shear in its turn can lead to tissue breakdown. In addition, we find countless users strapped into place, often with knee pads and other restraints to stop the slipping. To add insult to injury, this posteriorly tilted position leads to the mouth falling open. (Sit with severe posterior pelvic tilt and click your tongue: your mouth tends to fall open. Now sit up straight with strong anterior tilt and click your tongue: your mouth will tend to close.) The open mouth position leads to drooling. At meal times the combination of the posterior tilt and the head pushed back may be good for breathing, but is not good for getting food down the oesophagus. Boy! Does posterior pelvic tilt look bad for our clients' overall well-being.

The answer? A good properly placed back that can be rotated so that the top of the pelvis at the back (the iliac crests approximately 12cm from the seat surface) is pushed forward towards anterior tilt. (There are systems from Vine Seating and Support Systems and from Varilite, for example which can provide the appropriate support.) If you put your hands down the back of most seated people, you will find little support taking place below the shoulder blades: to get support here one usually needs to fall back into severe posterior pelvic tilt. Fill in this space with a good support, and gravity can then bear down straight through the body mass onto the seat cushion, and the needs for belts and restraints are greatly reduced.

People with an **anterior pelvic tilt** usually have less positioning problems, except that the sources of this often bring with them athetosis or other seating challenges. In this case support at the ASIS is recommended. The positioning challenges increase where there is a **lateral** and/or **rotational** tendency. These latter are often combined with anterior and/or posterior tilt.

A final point: to maintain balance (i.e. to use gravity as a friend) the relationship of the pelvis to the trunk is in opposition. If the pelvis gets pushed out at one angle, the trunk will bend the opposite way. The result is that the pelvis will dictate the orientation of the head and neck. Provided there is flexibility in the joints around the pelvis, then levelling out the pelvis will lead to straightening of the spine and optimum orientation of the head and neck.

AMOS – setting up your client

The acronym AMOS covers Angles, Materials, Orientation, and Shape, although we shall deal with these in the order ASMO.

Angles

To check out the angles which your client can achieve, a mat evaluation is required. Starting with your client in a supine position, the goal is to find any fixed postural limitations, and the pelvic range of motion, since, obviously, you cannot expect to change a fixed posture. First check out the anterior range of pelvic rotation, and then in a neutral central position, check for lateral and rotational movement. Stabilise the pelvis, and check for hip flexion. Moving down the body, from a fixed pelvis and hip position check the range of

hamstring length. Establish range of movement at the knees and then the range of abduction and adduction of the thighs. Moving up the body find the position of any kyphosis or lateral curvature. Establish the upper extremity of motion (for access to wheels, etc), and then check the lateral and rotational movement available at the neck.

Next evaluate your client in the sitting position. With the feet supported, can he or she sit unsupported? Go through available ranges of movement, much as above. Then stabilise the pelvis high on the iliac crests: find the balance point for the shoulders by supporting in the lower thoracic (not lumbar) area. Then remove the pelvic support and find the balance point between the two positions. For scoliosis, establish three point fixation (see section on Placing Supports).

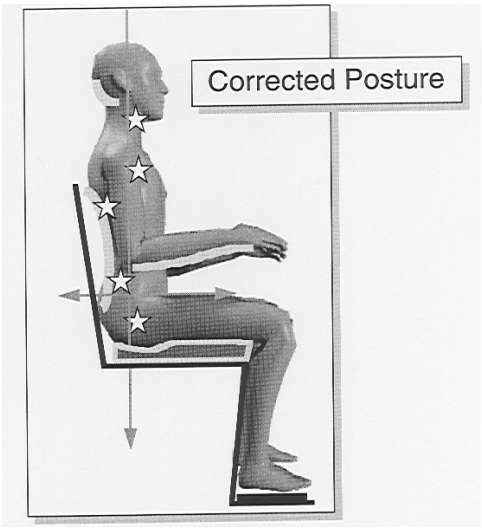
Shape

Having established what you can achieve with your client's angles, you can then work on shape in the seat. Using appropriate supports we will aim to control any posterior tendencies at the pelvis first, bearing in mind that the hip joint is the pivot for the whole body. Block the pelvis by a support at the bottom of the back. To block migration out of the chair achieve this by shaping around the thighs. Footrest adjustment is then a critical procedure to redistribute as much pressure as possible under the posterior thigh - an area more suited to bearing the weight than the skin around the ischial tuberosities. This is an area where a pressure mapping system will give you an accurate picture as to how appropriately the footrests have been set.

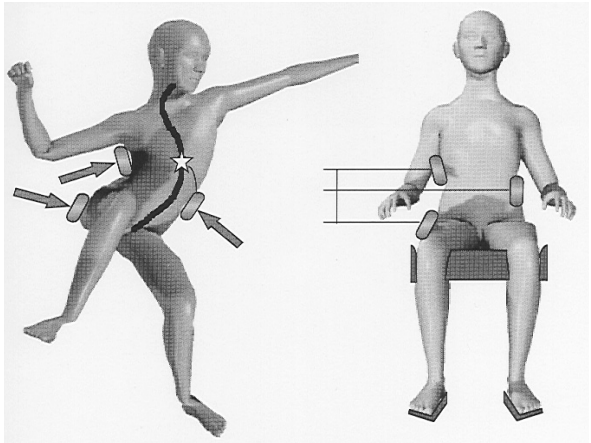
Having set up the pelvic area, the trunk, neck and head can then be addressed. Stabilisation of the lower thoracic areas can be achieved by a mix of planar and contoured supports: planar supports will cover the angles, while the contoured supports will provide the shape. At this point, correctly adjusted arm supports will both help provide the correct shape, but will also help to take some pressure off the trunk and seat.

Placing supports

1. In placing supports, the aim is to set the key pivots (axis, shoulder, upper thorax, L5, trochanter) in as straight a line as possible through the line of gravity.
2. Where there is **flexibility** in a joint, optimise the client's position. Where a joint is **fixed**, supply support
3. Where there is **anterior pelvic tilt**, support at the ASIS.
4. Where there are **lateral** tendencies, it is important to establish the reasons for these in order to handle them appropriately.



5. For **low tone/flaccidity,** we can use the analogy of a river: gravity is producing flow downstream. The seating provides the rocks which direct the flow. Therefore we need a firm level base of support and symmetrical contours.
6. When dealing with **athetosis**, asymmetry is important for your client's function, but limit the asymmetry. Use flatter, rather than contoured surfaces, to allow for movement. Make use of supports to bring your client back into symmetry **for rest**.
7. With **pathological asymmetric spasticity** it is important to establish the **Triangle of Control**: find the apex of the primary curve in the spine. Identify the rib associated with the vertebra at this apex: provide the first support just below this rib. Next, on the opposite side of the body, block at the hip and also as high as possible. This provides the Triangle of Control which should be made as tall and narrow as possible. If the triangle is too short and wide (e.g. in some spina bifida clients), then an orthosis is indicated.



The triangle of control

Materials

Selection of seating **materials** needs to address a client's skin, support, and comfort needs. This is achieved by both the cover and the core of the seat or back. (Detail in this respect is really the content of another article.) Pressure and shear do need to be considered together - for example, a gel/air mix is good for reducing shear, but is poor for maintaining posture. The content of a cushion needs to be appropriate to your client's needs. Bear in mind that the firmer the material, the more accurate the shape has to be to distribute pressure to the maximum (how could one make the most comfortable seat possible out of concrete, a pretty firm material!?). Finally, when considering your choice of cover, try to select one which will pull moisture away from the body, to reduce the risk of moisture induced tissue maceration.

Orientation

Then we come to your client's **orientation**. This is where we look at how best to set up a chair to allow your client to interact optimally with his/her environment. This can be achieved by adjusting the seat and/or the chair.

The dilemma we face is that to maximise every freedom of movement, we have to approach maximum instability (remember the pyramid on its apex at the start of this article?). Providing the most narrow chair possible will give the greatest manoeuvrability indoors, but gives the greater risk of lateral instability (suggestion: increase camber of wheels while training client to become used to a chair, and reduce camber later as confidence and ability improves).

The Optimal Tilt Test

For ease of propulsion, it is necessary to take as much weight as possible off the front casters. To achieve this, carry out the Optimal Tilt Test. With your client in the chair, tilt the chair right back so that the casters are well off the ground. Place a hand behind your client's head or shoulders, and reduce the tilt until you feel the weight starting to come off your hand. Get someone to block the front casters at this position, and measure the angle of the seat frame against the horizontal. You now need to adjust the front casters and/or the seat angle to achieve this angle. However, remember:

1. do not raise or lower the seat beyond your client's ability to access the wheel rims for easy propulsion
2. the casters need to be set vertically.

A final tip - for clients with anterior pelvic tilt, use tilt in space to bring them back into a position where the pelvis is just into posterior tilt with respect to the line of the pull of gravity.

Secondary supports

In this article we have looked at how far we can go to suit clients as effectively as possible without resorting to secondary supports. In the next issue of this newsletter we will look at how to use secondary supports effectively, when we have gone as far as we can without them, and there is a need for additional intervention.

This article has tried to represent Tom Hetzel's approach as accurately as possible, but may not be appropriate in all cases. If you would like to follow up the ideas in this article in more detail, video tapes and course book of Tom's presentation are available from BES Rehab Ltd, 9 Cow Lane, Fulbourn, Cambridge CB1 5HB (tel/fax 01223 882105, e-mail besrehab@thefree.net).

Barend ter Haar

BES REHAB (Treasurer and membership secretary PMG)

Final clue:
They promote Fredrick very publicly, making sure there rival firms hear about it!
Page 31 for answer

LITERATURE REVIEWS

Florentino L, Phillips D, Walker A, and **Hall D**. Leaving paediatrics: the experience of service transition for young disabled people and their carers. Health & Social Care in the Community 6 (4), 260-270.

We are all aware of the trauma caused by the transfer from paediatric to adult services and how many young people fall through the net as they enter the adult forum. This article is based on the experiences of 87 young people or their carers, living in the Sheffield, Rotherham and Chesterfield area. The work was commissioned by the Department of Health in 1994. Those reading the report and working with this group will recognise the feelings of frustration and confusion demonstrated in the interviews. Apart from highlighting a number of gaps in the system experienced during the transition period and beyond, the report also touches on some interesting facts relating to changes in the disability pattern. Advancements in the prevention of Spina Bifida has now reduced the incidence rate of a disorder once listed as one of the two most common conditions (the other being Cerebral Palsy), causing physical disability and neurological disorders in young people. This is an interesting article confirming many facts of which we are already aware whilst giving an insight into the feelings of those experiencing the change in status. The challenge is to find a way to ensure that these difficulties are reduced for those for whom we personally have some responsibility.

Ball M. (1998) Social Services Inspectorate (SSI). Disabled Children: Directions for their future care. Department of Health, Leeds.

Whilst a number of documents such as the NHS White Paper The New NHS (1997), Green Papers Our Healthier Nation (1995), Better services for Vulnerable People (1997) and Excellence for all Children (1997) contain statements expressing the governments' intention to improve integration of services, co-operation between agencies and sharing of budgets for the benefit of service users, this report is of interest in that it relates to a series of seminars which were organised by SSI to discuss how some of the proposals are being, or can be implemented into everyday practice.

'Disabled children and their families require services from health, education and often social services and when these agencies do not work together disabled children are among the first to suffer'. This is the opening statement made in the Foreword to the report by Paul Boateng. His following thoughts on 'inefficiencies' and 'turf wars' which persist within and between agencies will, I suspect, strike a bell with us all. The current 'in' words are 'joined-up', 'integration' 'working together', 'multi-agency assessment', inter-agency initiatives'. It all sounds good on paper but how do we translate this into practice? It is easy to feel that we have heard it all before - whatever happened to 'joint commissioning' - and will a rash of new words which reflect what we all feel actually make things happen? Many of us already work closely with our colleagues from other agencies, sharing skills and knowledge and carrying out joint assessments. Implementing joint decisions that will really make a difference to service users, requires hard work and persistence on the part of practitioners, and, inevitably, depends on the personalities and priorities of the decision makers. This easy to read report contains examples of good practice as well as other useful information relating to the size of the problem. It could well provide some ammunition to help you to influence changes locally.

Available from DoH, PO Box 410, Wetherby, LS23 7LN. Fax 01937 845381 Ref: CI(98)12

References:

Department of Health (1997) **Better Services for Vulnerable People**. DoH, London.

Secretary of State for Education and Employment (1997) **Excellence for all children? Meeting special educational needs**. The Stationery Office. London.

Secretary of State for Health. (1997) **The New NHS: Modern Dependable**. DoH. London.

Secretary of State for Health (1998) **Our Healthier Nation. A contract for health.** Stationery Office London.

Patsy Aldersea

Occupational Therapist Merton and Sutton Wheelchair Service Manger

PMG NEWS

OBITUARY
MIKE HALL (1966 - 1998)

It is with great sadness that we have to report the death of Mike Hall, Rehab Engineering Manager, based at the Royal National Orthopaedic Hospital, Stanmore, North London. Mike was tragically killed in a car accident whilst travelling to Glasgow for New Year celebrations. His loss has had a huge impact, both at Stanmore and in the many District Wheelchair Services where he worked as an engineer.

Mike was one of those people who appeared naturally talented in all aspects of his life. In general his philosophy for life appeared to be work hard, play hard. He seems to have lived to this philosophy from an early stage, and reports of him being out on the town with his friends until the early hours, on the nights before his 'A' level exams are quite believable. If true, this form of 'revising' was most effective, as he apparently passed all his exams with ease. Upon leaving school, he went to study Zoology at Leeds University (nothing to do with his love of Leeds United FC we were expected to believe), before moving to the Bioengineering Unit of the University of Strathclyde to do a PhD in 'Energy Considerations in Amputee Gait'. His work there resulted in the publication of more than a dozen papers, and earned him respect from both his peers and lecturers alike. Mike then worked as a research assistant with the Department of Orthopaedic Surgery and the Institute of Biomedical and Life Sciences and the University of Glasgow.

In 1995, following his studies, Mike was employed by King's Healthcare as Rehabilitation Engineer in the North West Thames Region. Quite why a man with his considerable knowledge in lower limbs and gait analysis ended up working with wheelchairs is still somewhat of a mystery, but he made the change without difficulty. A big man, in both character and stature, he soon began to make his mark in the service. His intellect and sharpness rapidly earned him considerable respect from all who worked with him. It is a measure of his ability that it was only 18 months before he was promoted to Rehabilitation Engineering Manager at Stanmore. Mike enjoyed his work as an RE and amazingly managed to meet the never ending challenge imposed by clinical demands. In addition, he was actively involved in training and education at both regional and district levels, and was particularly active in the areas of risk analysis, EPIOCs and Wheelchair Maintenance Contractors. His energy and enthusiasm for his work got him involved in all sorts of work outside of his contractual obligations. Of particular note is his contribution to setting up the EPIOC scheme in NW Thames and subsequent audit of the service to improve standards of service delivery to users (see EPIOC audit article elsewhere).

Possibly because of his previous work, Mike also had strong feeling about the need for research and development within the NHS. He was always keen to identify areas of potential development, particularly if he felt that it was appropriate for Rehabilitation Engineering.

Despite his work commitments, Mike still found time to enjoy himself. He was always off at weekends visiting friends from all over the country and he had a great love of sport, both playing and watching.

Mike was only 32 years of age when he died. However, it is fair to say that he managed to pack a considerable amount into those 32 years, to the great benefit of society as a whole. Comments made from both his patients and the people with whom he worked, are evidence if any were needed, that he will be sorely missed. As is often the case, it is only when people move on or die, that their impact on others is fully appreciated.

We are all thankful to have had the pleasure of knowing and working with Mike.

Our thoughts are with his Mike's wife Misbah, and to all his family.

Jon Ward, Phil Swann

Annual General Meeting at Hull '98
12:15 Wednesday 28 April 1998

98 AGM.1 Membership

More than 20 members present

98 AGM.2 Apologies for Absence

Michael Hare

98 AGM.3 Minutes of previous meeting

Proposed Patsy Aldersea, Seconded Rene Parison, agreed *nem con.*

98 AGM.4 Matters arising

98 AGM.5 Chairman's report

Published in PMG Newsletter vol 8.

98 AGM.6 Treasurer's Report

Summary presented by Alan Turner-Smith, members are welcome to ask the treasurer for details. Thanks to Donna Cowan for looking after the accounts since Tony Harman left until the new treasurer takes over.

RHL to Contact accountant to agree to continue.

Statement of account to be included in Newsletter.

98 AGM.7 Changes to Constitution

Minor changes for consistency in version 98/0.2 described. Changes: proposed by Roy Nelham, seconded by Linda Marks, accepted nem con. Changes to listed in PMG Newsletter vol 8.

98 AGM.7.1 Proposed amendments to the Constitution of the PMG:

We propose that the membership fee should be abolished and membership of the posture and Mobility Group should be defined by:

1. Those having attended n PMG Annual Meeting during the previous two years, together with
2. Those who have written to express their interest in the activities of the Group during the last two years. *(The Conference flier could include a statement, such as "l cannot attend but please retain my membership of the PMG.")*

The following change to the Constitution Will be required:

Add to section 3:

3. have registered at a PMG National Conference during the present of previous two calendar years or who, in the same period, have indicated in writing to the Membership Secretary that they are committed to the purpose of the Posture and Mobility Group and wish. to confirm their membership.

Delete paragraphs 6.1 -6.4

Paragraph 6.5 becomes

6.1 The accounting year for membership shall be the calendar year, 1st January to 3lst December.

Delete paragraph 6.6

Renumber paragraph 6.7 to 6.2

Proposer:

Alan Turner-Smith. Seconder: Robin Luff

The meeting expressed concern that this arrangement would not demonstrate commitment too the Group. Recognition by other bodies might be weakened. Proposal defeated: 2 for, all others against.

98 AGM.8 Elections to Committee

Postal ballot will be necessary.

98AGM.9 Any Other Business

None.

98AGM.10 Date, time and venue of next meeting

Some time in 1999, venue to be announced.

AGM at Glamorgan '99
12:00 Tuesday 13th April
Agenda

99AGM.1	Membership
99AGM.2	Apologies for absence
99AGM.3	Minutes of previous meeting
99AGM.4	Matters arising
99AGM.5	Chairman's report
99AGM.6	Treasurer's report
99AGM.7	Elections to committee
99AGM.8	2000 Meeting
99AGM.9	Role of PMG into the Millennium
99AGM.10	Any other business

Mike Hall Memorial Fund

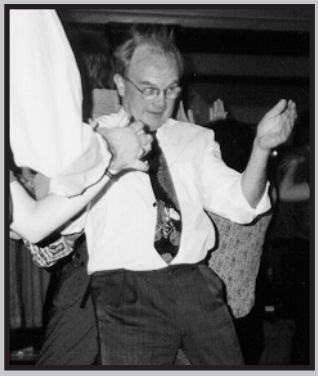
To raise money for Mike Halls memorial fund I took part in the High Peaks Marathon. The event is a 40 mile circuit round Edale which this year started at 23:00hrs on the 5th of March. Unfortunately the event got called of 3/4 of the way round due to bad weather conditions, namely a snow storm that started round 03:00 am and just carried on! Our team completed 29 miles before we got picked up.

Sponsership monies (cheques made payable to Mike Hall Fund) should be sent to P. Swann, DSC (Wheelchair Service), Royal National Orthopaedic Hospital, Brockley Hill, Stanmore, Middx, HA7 4LP. Or you can give it to me at Glamorgan.

Phil Swann

Annual PMG Conference Photo Competition

Congratulations to Alan Turner-Smith, winner of Hull '99 Photo competition. Just so there can be no doubt as to which photo I'm talking about hear it is again!



Don't forget to bring your cameras to Glamorgan, the winning photo of this prestigious competition will be published in the next issue.

Guidelines as to how these photos are judged are hard to find, in short its up to the editorial team so anything goes.

As we go to press, we are sad to hear of the sudden death of Chris Bar and would like to extend deepest sympathy to his wife Melanie and family. A full obituary will appear in the next issue of Posture and Mobility.

PMG Guidelines

Much has happened in the field of posture and mobility, over the past couple of years. We have seen services opting to bring in-house, parts of the service that historically have been provided by third party contractors, such as product delivery, handover, and collection. The EPIOC and voucher scheme projects are in the main active throughout the country. And let us not forget the end of the Medical Device Directive watershed period which is now forcing us to think of a wheelchair as more than just an 8L, (sorry MDA I blaspheme) and a custom device as more than piece of foam wrapped around an armrest pad and held there using tape!

But what, I hear you say, has this to do with the guidelines and me? The answer is everything. The guidelines were produced as a tool that would not fade and die, but grow and develop within the area of rehabilitation that we hold most dear to us. To do this we must ensure that the information held within is up to date and of a content that is both meaningful and correct. To ensure this we need feedback from you as to what is missing, corrections, what is old news, and general ideas over the way in which the information is presented.

When and to whom should I respond to?

In the back of the guidelines is a feedback form. Copy it. Fill it in. Send it Dave Calder at the address shown, or hand it in to the PMG information desk at the April PMG conference (the content of which is looking good). if you want deep and meaningful discussion centred on your ideas for the guidelines you can catch me at the conference bar, but make it early if you want a meaningful answer!

Dave Calder

PMG Guidelines Editor

The PMG committee are pleased to announce that all members attending the '99 conference at Glamorgan will receive a £25 book voucher as part of the PMG's commitment to education.

Post Bag

Dear Phil,

May I respond, through the Postbag, to Terry Pountney's letter in the Summer `98 Newsletter vol 8. I write at the request of the PMG Committee but these views are essentially personal; please attach all blame for them to me and not to other Committee members! That there is fragmentation in posture service provision is an issue evident to al those who work in the field in the UK. This is however a structural fragmentation thrust upon us by the way in which posture management became a health service function. A number of your readers will remember the situation before the Disablement Services Authority (DSA) "rationalised" the provision of seating in relation to wheelchairs by passing both the budget and the responsibilities to the branch of the DSA responsible for wheelchair provision. The provision for static seating was never rationalised, falling - often uncomfortably - between social services and education authorities.

The recognition of the importance of corrective positioning in lying and standing is a more recent development arising from the excellent investigative work at Chailey Heritage. This at last begins to provide us all with the clinical evidence necessary to make the case to health commissioners for a properly integrated posture service. Evidence of this type is one of the fundamental components required to demonstrate clinical governance in this field of health care. This would then become the driving force to bring about what we all recognise as being clinically appropriate; a posture service assessing and providing for continuous posture management It follows therefore that clinical standard for posture management must be drawn up based on the best available evidence and best practice. For this to be credible, it must have the overwhelming support of the practitioners currently working in the area of posture management. Clearly, the PMG represents one of the interested parties in this exercise. The necessary support for an accepted national standard would need to come from social services, education and commercial sectors as well. Whilst such agreement may be forthcoming from the professions involved in posture, I fear there will be less co-operation when the question of transfer of assets i.e. money is concerned. My management experience of many years tells me that the only budget line a manager will give up willingly is one which is clearly identified and is always overspent! I suppose the counter-argument, and perhaps a very good one, is that an integrated posture service would be in an excellent position to eliminate the inefficiencies which must arise in the uncoordinated provision of postural interventions. I am aware of a number of local initiatives in bringing together the various provider services for joint assessment and agreed provision. This is clearly helpful and a worthwhile improvement on total chaos but still deals only with the integration of seated posture. The case has to be made for the need to accurately identify those individuals requiring continuous posture management and for appropriate provision. This is my last year as Chairman of the PMG; perhaps my last task will be to initiate through the Committee work leading to the promulgation of the clinical standard for continuous posture management I might term this a nice way to finish*. This will lead on to the interesting argument about which service will become the provider of continuous posture management..

Yours posturally,

Robin Luff FRCS FRCP
Chairman Posture and Mobility Group

* The first correct interpretation will win a free drink

Dear Editor,

Terry Pountney,s letter (PMG Newsletter, Summer 1998 vol 8) has raised an issue which concerns all who work in the field of posture and mobility. The fact that equipment for postural management is funded by different agencies depending on whether it is to be used in the home, the school or for wider mobility can restrict implementation of an effective 24 hour postural management programme and, as stated by Terry, place individuals of all ages at risk of developing a greater degree of postural deformity. Certainly it makes common sense for an organisation such as the Posture and Mobility Group to take a lead in promoting good practice and encouraging comprehensive provision of services and equipment for total postural management. Co-operation and joint assessments already exist between many of the professionals working in the different agencies, but there is frequently a block when implementation of a programme requires commitment to funding. In order to be influential in this field, it is essential to attract members from all relevant agencies; social services, education, transport and employment,

to join in the debate. The programme for the conference to be held at Glamorgan in April includes some sessions related to this topic and, hopefully, there will be opportunity for the membership to debate this further. Nothing changes without hard work and perhaps every member could start by encouraging colleagues, from relevant professions and associated agencies to get involved with PMG to widen the debate and create a truly influential group in this field. Government policies are stressing the need for integration, partnership and 'joint' services. This is an ideal chance to implement some of these recommendations for the benefit of our client groups.

Yours sincerely,

Patsy Aldersea

Dear Editor, What's in a Name

As a Rehab Engineer working in the field of wheelchairs and seating I am amazed at the reaction of not only some of my peers, but other professionals to the Medical Devices Directive and the good practice that it demands. In the good old days (so I am told) you could prescribe 8 or 9 series wheelchairs manufactured to a national standard, issue, modify, repair and refurbish it, without providing too much traceability or control. Today we are told we must provide risk management throughout the prescription, delivery, and review process, (as a designer I automatically carry out this). We are told we must identify products properly on our prescription or recommendation and once delivered, we should maintain these products in good working order in accordance with the manufactures specification, i.e. service it before it needs fixing.

This means that prescribers must be aware of the actual name of product supplied (LT 800 rather than 8L) instead of relying on the wheelchair clerk, buyer or manufacture to second guess. We must write down more clearly our actions throughout the assessment process, taking time to record risk analysis and equipment part numbers. We must produce more comprehensive drawings or specifications for custom made devices and take time to ensure that the devices supplied are compatible with each other and the environment they are to serve. The dilemma is that one hand health care professionals (myself included) complain that there is not time to do all of this and get through the workload, whilst on the other the same group of people complain when they pick up someone else's work and find another visit or clinic appointment will be required due to the lack of information recorded!

Is it not time to shake ourselves down and move forward, positively, developing a better service that we can be proud of, and doing so without feeling that paper work, specifications, and accountability are someone else's job. Documentation has the feel of detracting oneself form the job in hand, but in truth could accurately save us time if it reduced the amount of secondary visits or telephone calls needed because of the lack of good records?

On a final note, there have been times when I have been unsure as to what the equipment's real name or model number was, but it is in every bodies interest to take time to find out rather than chose the next best thing!

PS keep up the good work and thanks for a great newsletter

anonymous

Notice Board

First Step towards an accredited wheelchair training programme.

For over two years a small group of therapists have been working on setting up an accredited wheelchair training programme. Initially this was targeted solely at therapists, but others have shown an interest and the final programme will provide a range of modules suited to the various needs of all working in the field of mobility. The findings of a survey sent to wheelchair therapists and managers in 1996 confirmed the need for accreditation and identified the preference for distance learning. A search around a number of universities identified Greenwich as being the most appropriate authority to approach for accreditation. Start up funding has been provided by the South West Thames Training and Education Consortium, who in return will have a number of free places on the course once it is up and running.

Stage one is now completed and accreditation has been given to the Core Module at level three. This will be available to postgraduate therapists or others who can demonstrate a similar level of qualification. Four fur-

Date	Venue	Title	Contact
April 1999			
12 - 13	Glamorgan	**National Conference of the PMG**	**tel. 0171 737 4000 ext 5282.**
14 - 16	Luxembourg	Medtrade Europe	tel. +32 2 269 84 56
28 - 29	Glasgow	Independent Living Show	tel. 01275 836465
June 1999			
25 - 27	Crowthorne	Mobility Roadshow	Crowthorne Mobility Service
July 1999			
7	Uni. of Salford	Posture and Mobility	tel. 0161 295 2291
21	Uni of Salford	'At Risk' Patients	tel. 0616 295 2291
September 1999			
7 - 10	Nottingham	IPEM Annual Conference	tel. 01904 610 821
15 - 16	Wembley	Independent Living Show	tel. 01275 836465
April 2000			
9 - 11	Llandudno	**National Conference of the PMG**	**tel. 0171 737 4000 ext 5282.**
September 2000			
12 - 14	Southampton	IPEM Annual Conference	tel. 01904 610 821

ther modules covering: postural management; pressure care issues; equipment and wider mobility, are nearing completion and will be put forward for accreditation during this year. Also underway are similar modules for Level 1 and Level 2 accreditation. Some of these will be structured to meet the needs of staff working in Mobility Centres such as driving instructors; others will reflect the subjects covered by the level 3 programme though more suited to technicians and helpers. In due course, all will be accredited by Greenwich.

Planning for the Core Module to be run during 1999 - 2000 is underway and detailed information will be circulated in due course.

This is a separate initiative to the DoH training framework, but it is envisaged that the Greenwich programme will sit within the framework once it is completed.

Further information can be obtained from Patsy Aldersea, address see back cover.

Answer

The company wanted to fire Fredrick, however this was costly. Knowing their rival company wanted one of their top people they had a cunning plan. Promote Fredrick so publicly that rival firms would head hunt him and lure him away with a salary he could not resist. Thus getting rid of him and saddling their rivals with a dud.

Expert Groups

Notice of new work proposed by ISO on a wheelchair seating standard has been publicised. The scope has been defined as:

a) Teams and definitions
b) Pressure management devices
c) Postural support surfaces
d) (Seating devices for use in motor vehicles - ANSI Item)

Dr Geoff Bardsley will be the ISO TC 173 SCI WG11 the convener and work will be commenced at an inaugural meeting in Orlando 6/7th March 1999 immediately following the I 5th International Seating Symposium.

The new standard is an exciting and constructive development in the area of wheelchair seating standards. The BHTA has already established a working group which has been meeting for the past year to consider this area.

It has examined the need for expert groups that operate like RESNA in the USA and is seeking volunteers to participate. This will allow contribution to be channelled to WG11 and vice versa. Anyone interested in participation should contact Prof. Martin Ferguson Pell at University College London, Brockley Hill, Stanmore, HA7 4LP, Tel: 0l8l9542 300, Fax: 0181 385 7151.

Visit the RESNA website for information in this area.

The BHTA group is actively involved and will welcome input via Chairman, Ray Hodgkinson at 1 Webbs Court, Buckhurst Ave, Sevenoaks, Kent, TN13 lLZ, Tel: 0I732 458868, Fax: 01732 459225.

Ray Hodgkinson

Editorial Team

Editor:
Phil Swann,
RED Kings Healthcare,
c/o Special Seating,
Royal National Orthopaedic
Hospital, Brockley Hill,
Stanmore, Middx, HA7 4LP.
tel: 0181 954 9581
fax: 0181 954 1589

Assistant Editor:
Julia Cunningham,
Scarborough & NE Yorks,
Wheelchair Service,
St Mary's Hospital,
Dean Road, Scarborough,
North Yorkshire, YO12 7SW.
tel: 01723 353 177

Assistant Editor:
Patsy Aldersea
Wheelchair Service,
7 Damson Way, Orchard Hill,
Carshalton, Surrey, SM5 4NR.
tel: 0181 770 0693
fax: 0181 770 0372

Assistant Editor:
Dave Calder
RED Kings Healthcare,
c/o Special Seating,
Royal National Orthopaedic
Hospital, Brockley Hill,
Stanmore, Middx, HA7 4LP.
tel: 0181 954 9581
fax: 0181 954 1589

Mitchell's Marvels

'It's got nothing to do with me, you need to speak to....'

The next issue of Posture & Mobility will be in **September 1999**. The deadline for this issue is the **1st of August**. The aim of the Posture & Mobility is to keep members in touch with current events in the world of posture and mobility and to provide the opportunity to share ideas and learn of new initiatives. Articles, should be between 500 and 2000 words, photos and/or cartoons are welcome as are jokes and mindbenders etc. Please send contributions printed (Times New Roman bold 12pt) or (preferably) on disk.

The PMG Newsletter is published by the Posture and Mobility Group. The views expressed are those of individuals and do not necessarily reflect those of the Group as a whole.