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Cover Page: thanks to Harriot Beynon
for Nottingham 2002 photos



Guess the Product

Guess the Product: The product featured on page 2 of volume 15 was **an R82 Panther base** - the prize remains unclaimed! Better luck with this issue.

The next issue of Posture & Mobility will be in **March, 2003**. The deadline for this issue is the **31st of Jan**. The aim of 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 preferably by **email** to **Phil Swann** at **philswannptmy@aol.com** (**send all pictures in their original format, not as part of a Word document**). Otherwise post a floppy disk with text done in Word or if you don't have Word printed text in Times New Roman 12pt will be fine.

Posture & Mobility 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.

Mitchells Marvel's

Once upon a time it was resolved to have a boat race between a Japanese team and a team from the NHS. On the day they were as ready as they could be.

The Japanese won by a mile.

Afterwards the NHS team became very discouraged and morale sagged. Senior management decided that a reason for the defeat had to be found and so a working party was set up to investigate the problem and recommended appropriate action.

Their conclusion was that the Japanese team had 8 people rowing and one person steering, whereas the NHS team had 8 people steering and one rowing.

Senior Management immediately hired a consultancy company to do a study on their team's structure. Millions of pounds and many months later they concluded that there were too many people steering and not enough rowing.

To prevent losing to the Japanese the following year, the team structure was changed to 3 assistant steering managers, 3 steering managers, one executive steering manager and a director of steering services. A performance and appraisal system was set up to give the person rowing the boat more incentive to work harder.

The next year the Japanese won by 2 miles.

The NHS:

- ☐ laid off the rower for poor performance;
- ☐ sold off all the paddles;
- ☐ cancelled all capital investment in new equipment;
- ☐ halted development of a new canoe.

The money saved was used to give higher than average pay awards to senior management!

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Editorial

Wheelchair service staff strive hard to make provisions which will enhance the quality of life of their users and will enable greater participation in everyday activities. All too often, though, full use of wheelchairs supplied is restricted by the built environment; steps and stairs, poor pavement surfaces and inaccessible buildings and transport systems.

Whilst holidaying in a remote area of Italy, I was impressed with the evident commitment given to enabling people to overcome mobility difficulties posed by architectural barriers - a platform lift in place of steps only yards from one of the major Roman roads constructed in 220BC; a stairlift to overcome a steep and stepped alley in a medieval town; an individually-designed ramp at the entrance to a building still bearing scars of earthquake damage from 1997.

If other European countries can align their historical heritage with the needs of 21st century living and can

overcome natural disasters to promote individual independence, then surely the UK can match this commitment. One of the intentions of the Disability Discrimination Act (1995) was to make premises more accessible to people with disabilities. But a visit to my local town centre reveals only too clearly what a long way there is still to go before our wheelchair users can access the ranges of transport, services and buildings that are available to their able-bodied counterparts - and may already be accessible to wheelchair users in other countries.

Elizabeth White

Editor for E&T, R&D and literature reviews

Letter from the Chairman

Dear PMG members,

The PMG committee have decided to change the way we work slightly to make our meetings as efficient as possible. This includes creating a number of sub-committees, involved in more specific areas. At present these are: Annual Conference Planning/Education, Research, Guidelines and International Conference Planning. More groups are planned and all PMG members are invited to volunteer themselves for a sub-committee that they would like to get involved in.

I am very pleased to see that our plea for more therapists has had some effect, with Penny Martin, Gillian Wigham and Natalie Dean being elected on to the committee it is more balanced than before. I still feel that a few more therapists on the committee would help improve the balance further, something which hopefully will be addressed in future elections. However, I am certain that the current, expanded committee, with its blend of backgrounds and experience, will allow the PMG to develop, grow and move forwards at an even faster rate than ever before.

Unfortunately Rene Parison has decided to step down from the PMG committee as his role at Haroldwood has recently changed, requiring him to reduce his voluntary commitments. Rene leaving is a huge loss to the committee and I would like to thank him for all of the hard work that he has put into the PMG over the years. On behalf of the PMG I wish him all of the best in the future, I am not sure the meetings will quite be the same again!

Just a quick reminder that, as in previous years, there are bursary (FREE!) places for the annual conference 'Improving the Outcome'. These are available to newly qualified professionals working in the area of posture and mobility. Applications will be reviewed by the Conference organising committee and will be awarded on a case-by-case basis.



Russ Jewell
Chairman PMG

This true story is a bricklayer's accident report.

Dear Sir,

I am writing in response to your request for additional information in Block 3 of the accident report form. I put "poor planning" as the cause of my accident. You asked for a fuller explanation and I trust the following details will be sufficient. I am a bricklayer by trade. On the day of the accident, I was working alone on the roof of a new six-story building. When I completed my work, I found that I had some bricks left over which, when weighed later were found to be slightly in excess of 500lbs. Rather than carry the bricks down by hand, I decided to lower them in a barrel by using a pulley, which was attached to the side of the building on the sixth floor. Securing the rope at ground I went up to the roof, swung the barrel out and loaded the bricks into it. Then I went down and untied the rope, holding it tightly to ensure a slow descent of the bricks. You will note in Block 11 of the accident report form that I weigh 135lbs. Due to my surprise at being jerked off the ground so suddenly, I lost my presence of mind and forgot to let go of the rope. Needless to say, I proceeded at a rapid rate up the side of the building. In the vicinity of the third floor, I met the barrel, which was now proceeding downward at an equally impressive speed. This explained the fractured skull, minor abrasions and the broken collar bone, as listed in section 3 of the accident report form. Slowed only slightly, I continued my rapid ascent, not stopping until the fingers of my right hand were two knuckles deep into the pulley. Fortunately by this time I had regained my presence of mind and was able to hold tightly to the rope, in spite of beginning to experience pain. At approximately the same time, however, the barrel of bricks hit the ground and the bottom fell out of the barrel. Now devoid of the weight of the bricks, that barrel weighed approximately 50 lbs. I refer you again to my weight. As you can imagine, I began a rapid descent, down the side of the building. In the vicinity of the third floor, I met the barrel coming up. This accounts for the two fractured ankles, broken tooth and several lacerations of my legs and lower body. Here my luck began to change slightly. The encounter with the barrel seemed to slow me enough to lessen my injuries when I fell into the pile of bricks and fortunately only three vertebrae were cracked. I am sorry to report, however, as I lay there on the pile of bricks, in pain, unable to move, I again lost my composure and presence of mind and let go of the rope and I lay there watching the empty barrel begin its journey back down onto me. This explains the two broken legs. I hope this answers your inquiry.

SEATING AND TRANSPORTATION ISO16480 PART 4**WHAT'S GOING ON?****Gordon McQuilton, Managing Director, Specialised Orthotic Services Ltd.**

The suitability of medical devices for the transportation of clients has been a key issue for some time. This has led to a tremendous amount of activity on the part of all parties concerned with the transportation of wheelchair dependant clients.

At present the only international standard that can be applied to the evaluation of seating equipment is ISO 7176 part 19. This standard was developed to provide a suitable method for the testing of wheelchairs to simulate a frontal impact at 30mph. As there is no ISO standard specified for the testing of seating systems, seating manufacturers tested to ISO 7176 part 19. This allowed seating manufacturers to at least test equipment to an established crash test standard even if not specifically verified for the testing of seating systems, but wheelchairs.

This anomaly is now being addressed and has resulted in the drafting of ISO16480, which is a 4 part standard intended to establish international standards to regulate the following categories related to seating equipment intended for use with wheelchairs;

ISO 16840.

Part 1. Definitions of Body and Seat Dimensions

Part 2. Tissue Integrity Management.

Part 3. Postural Support Devices - Strength Testing.

Part 4. Seating Devices for use in Motor Vehicles.

Part 4 is intended to establish a standard for the testing of "Seating Devices for use in Motor Vehicles" and this is currently in draft form with the 2nd Draft recently issued for comment in July 02.

There has been some debate in the UK regarding the initial drafts of the standard, which proposed that a surrogate wheelchair be accepted as a basis for the standard with regard to testing seating systems. Using a surrogate wheelchair supposedly imparts maximum loading to the seating system therefore creating a "worse case scenario". However following a seminar on seating standards held in Birmingham last August there was some serious doubt expressed within the UK regarding the ability of a surrogate to accurately represent a wheelchair under test. To date the surrogate in question is still developmental and is designed to represent an electrically powered wheelchair. There is

obviously a big difference in mass (weight) between an electric and manual wheelchair and various parties expressed an opinion that a surrogate wheelchair would not respond in the same way as a host wheelchair under crash test conditions. Also, would it not be necessary to develop another surrogate to allow a more accurate interpretation of a manual wheelchair, if a surrogate approach was adopted?

In April this year in conjunction with Alan Lynch (MDA) and Bob Appleyard (Millbrook Proving Ground) a research group from associated professional and commercial backgrounds was established to take part in an evaluation programme to enable a detailed study of both surrogate and host wheelchair testing and outcomes. Several months of debate had established that the only way to resolve the issue was to carry out comparative tests with both surrogate and host wheelchairs to collect relevant data as a means to confirm the realities of both types of approach.

The current surrogate specification of the current draft ISO16480 is a design put forward by the American contingent of the ISO Committee and is still under development.

The first group meeting took place at Millbrook Proving Ground in May. The basis of the project was conceived and would involve production by the U.K group of a duplicate surrogate to the American spec. It was necessary to build a replica of the American surrogate to use to maintain continuity between the U.S and U.K activities.

Funding of the group's activities would obviously be required and at this point the PMG were approached by the research group with a request to assist with funding. **The PMG Committee on behalf of its members agreed to fund 2 of the tests.** The basis of the programme would involve simultaneous tests between surrogate and host wheelchairs with various types of special seating attached. Each test would have identical seating placed on both the surrogate and host chairs for each test. This would allow a true comparative evaluation relative to each seating system tested with regard to performance against surrogate and host wheelchairs and to compare the resultant data. This would allow the group to then study com-

parative surrogate / host data.

It was decided to carry out a programme of tests involving various types of seating systems and most of the UK seating manufacturers have been involved.

All parties in the group were committed to the financial and practical requirements of the programme and this was endorsed by an investment in both time and equipment. This activity represents a significant effort on the part of the U.K to actively assist the development of an international standard with the PMG providing valuable financial assistance to the project.

The tests were completed in early October and the final meeting of the group was held to examine the test data and indicate how this valuable information could influence the final specification of ISO16840 - PART 4. This work has allowed delegates representing the UK to have added input at the latest ISO meeting in Dusseldorf and has directly influenced important amendments to the draft standard.

The achievement of the project is to illustrate the importance of this collaborative effort on the part of UK industry experts and the other professionals involved and has allowed the UK to make a significant contribution towards the final ISO standard ISO16840 PART 4.

Just as an observation, if you feel daunted by the current influx of regulatory specifications and standards, there are at present 7 working groups within ISO currently working on 25 voluntary standards related to wheelchair technology!!



Anybody for more coffee ?? Keep an eye on the current activity regarding ISO wheelchair standards at

www.wheelchairstandards.pitt.edu

Once upon a time there was a shepherd looking after his sheep on the edge of a deserted road. Suddenly a brand new Jeep Cherokee screeches to a halt. The driver, a young man dressed in a Brioni suit, Cerutti shoes, Ray-Ban sun-glasses, Jovial Swiss wrist-watch, and a Pierre Cardin tie gets out and asks the shepherd,

"If I can tell you how many sheep you have, will you give me one of them?" The shepherd looks at the young man, then looks at the grazing sheep and replies, "Okay."

The young man parks the car, connects the notebook and the mobile-fax, enters a NASA website, scans the ground using his GPS, opens a database and 60 excel tables filled with logarithms, then prints out a 150-page report on his high-tech mini-printer. He turns to the shepherd and says,

"You have exactly 1586 sheep here." The shepherd answers, "That's correct, you can have your sheep." The young man takes an animal and puts it in the back of his jeep. The shepherd looks at him and asks,

"If I guess your profession, will you return my animal to me?" The young man answers, "Yes, why not?" The shepherd says, "You are a consultant." "How did you know?" asks the young man.

"Very simple," answers the shepherd. "First, you came here without being called. Second, you charged me a fee to tell me something I already knew. Third, you don't understand anything about my business. Now can I have my dog back?"

ROYAL COLLEGE OF ART RESEARCH ASSOCIATE GIVES TRICYCLES A WHOLE NEW MEANING

On 8th October 2002, the Helen Hamlyn Research Associates Programme held its 2002 show at the Royal College of Art. One of the stars was MA Research Associate Ben Wilson who, in consultation with research partner, national charity Whizz-Kidz, has designed and prototyped a pedal-powered tricycle for disabled children.

Ben worked closely with Whizz-Kidz to identify needs and built a number of test rig prototypes to explore engineering geometries. The result is an innovative new-generation trike that is modular in design, advanced in bicycle technology and contemporary in style. It can be reconfigured swiftly from a foot pedal-powered vehicle to one pedalled by hand as it is assembled using existing ready-made bicycle components in different configurations. It also has a steering mechanism that enables the user to steer by redistributing their body weight.



The trike's versatility, which owes much to the dry-joint system of assembly, is not confined to hand and foot pedal positions. It also incorporates a level of adaptability to the size of the child so that the vehicle can 'grow' with its user. Ben has created two vehicles - one in aluminium and the other in stainless steel which demonstrate the different drive configurations.



Commenting on his project, Ben says: "Physically disabled young people deserve access to pedal vehicles with the same level of design innovation and 'cool' street image as everyone else. Unfortunately many tricycles for children without lower body strength are contraptions which shout 'special needs' and stigmatise their users. It has been a great experience coming up with this concept and seeing the reaction from the children who trialled it was fantastic!"

Ros Ham, Whizz-Kidz Director of Childrens Services adds: "We have been hugely impressed with Ben's dedication and enthusiasm for this project. The social and health-giving benefits of tricycles for disabled children and young people are massive and continued innovation in tri-cycle design and production is crucial. The advantage of Ben's prototype is that it can be built using existing modular components. This offers tremendous flexibility and cost-effectiveness and we are now looking forward to working with Ben to encourage a manufacturer to put this prototype into production."

Ben has produced a short video shot in collaboration with filmmakers The Light Surgeons showing children of different abilities having fun on the trike.

- The Helen Hamlyn Research Centre at the Royal College of Art is a centre for design research & development, which responds to social change. Its focus is 'design for our future selves' - using design to improve quality of life for people of all ages and abilities.
- The Centre collaborates with Royal College of Art staff and students and with a range of external commercial, academic, government and charitable partners, and its work is advanced through four key programmes - the Research Associates Programme being one of these.
- The Research Associates Programme addresses specific user needs and contexts related to social change, via a programme in which new Royal College of Art graduates undertake one-year externally sponsored design research projects within the Royal College of Art studios.
- Whizz-Kidz improves the quality of life of disabled children and young people through the provision of customised mobility equipment such as wheelchairs and tricycles. It is dedicated to providing help and advice to the children and their families and raising awareness of mobility-issues through national campaigning.

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Wheelchair Users in Vehicles ~ Good Practice (IPEM Joint Working Group)

Martin Seabrook Managing Director Active Design

This session aimed to present an overview of guidelines currently under development by a multi-disciplinary joint working group under the umbrella of IPEM, and aimed to consider some of the relevant standards and risks associated with transportation and wheelchairs.

Aims of The Guidelines:

- ☐ **Enable an equal level of safety to be afforded to a wheelchair user as would be given to any other vehicle user in similar circumstances**
- ☐ **Establish detailed guidelines for 'Good Practice'**
- ☐ **Identify where responsibilities may lie**
- ☐ **Develop a practical approach to Risk Management**
- ☐ **Provide a 'Knowledge base' of relevant information**
- ☐ **To provide suggested training requirements**
- ☐ **To complement MDA guidance (MDA DB2001)**

Given the basic premise that wherever possible/practicable wheelchair users should always transfer to a vehicle seat, there will be occasions when it is more appropriate and 'safer' to remain seated in a wheelchair. Irrespective of an individual's pre-disposition, everyone in a vehicle should have a basic right to an equal level of safety. This is the 'Safety Baseline' and can be vehicle specific. It simply comprises of the 'safety features' offered to other users sitting on normal vehicle seats in a similar position (ie. front or rear) in a given vehicle. However, the safety measures proposed for wheelchair users should be appropriate and proportional. For example, there may be little point fitting headrests to reduce whiplash injuries to all wheelchairs (if not otherwise required for postural control), since the wheelchair backrest structure is not adequate to support a headrest in the event of a rear end shunt, when whiplash injuries occur.

We all carry some responsibility either through our 'duty of care', or the Medical Devices Directives or even regulation 100 of the Road Traffic act. However, I would question if any of us has a right to restrict access to transport to wheelchair users. These guidelines will aim to explore the responsibilities of differ-

ent groups and put them into context.

Risk assessment will always highlight hazards and potential risks, (which can sometimes be seen as a restriction), although in practice, it is the process of risk management and appropriate reduction, which is important. Risks should always be put into context and should be considered relative to the potential benefit, and indeed relative to the alternative risks of another mode of transport. Risks can rarely be eliminated altogether, but can be reduced as far as is reasonable and practical today, although, a clinical need may override some other considerations. It is proposed that a structured approach is taken, through a standardised process, to manage the risks associated with transportation and wheelchairs.

Knowledge is an essential tool to enable us to execute our responsibilities and to this end it is proposed to establish a 'Knowledge Base' of both evidence based and peer reviewed work. It is anticipated that whilst pertinent summary information may be documented, a web based resource could be established, to act as a 'live' central reference point for information.

We all face the daunting possibility that any one of us might die from any one of a number of causes, Government figures suggest that during the next year 1 in 200 will die from a smoking related illness and 1 in 10,000 will die in a road accident, and that whilst we have a 1 in 10 million chance of being killed by lightning we persist in playing the lottery at odds of 1 in 14 million.

Transport related accident statistics are analysed and scrutinised to extreme lengths, although in practice the occurrence of incidents relating to wheelchairs is negligible. It is possible to extrapolate some interesting information; according to figures from the DTLR, there were 21,977 passengers either Killed or Seriously injured (KSI) in the year 2000, of which 21,384 were Car or Minibus occupants and 593 were Bus or Coach Occupants. Whilst it is clear that far less serious injuries relate to bus travel, it is possible to arrive at a probability of being killed or seriously injured as a car or minibus passenger of 1 in 29 million for each km travelled and 1 in 74 million for each km travelled on a bus or coach.

Given a UK population of 59.5 million and around 800,000 wheelchair users, we might expect to see around 300 wheelchair users killed or seriously injured each year in the UK. In practice actual figures are hard to find. However, they are thought to be much much lower, nevertheless we should remember the basic premise that a wheelchair user should be entitled to the same 'safety baseline' as other passengers.

ISO7176 pt19 'Wheeled Mobility Devices for use in motor vehicles' gives comprehensive consideration of the wheelchair and WTORS (restraint system) combination in transportation, and is the standard referred to when discussing crash testing. Whilst it is true to say that crash testing undertaken by manufacturers has considerably improved the safety of wheelchair users, it should be remembered that it is not a measure of occupant safety and is simply a comparative measure of the wheelchair and restraint system performance.

Currently wheelchair manufacturers in the UK tend to focus on the need to get a wheelchair 'crash tested', whilst paying little attention to the end user or the ease of use in transportation, despite a requirement under the medical devices directive to undertake a full risk assessment relative to the foreseeable use.

Unfortunately crash testing focuses on the wheelchair; during a typical test any amount of time can be taken to secure the wheelchair or crash test dummy (ATD), and the test will always use a top mounting for the shoulder harness.

Crash testing is unlikely to be representative of day to day life, when the driver may have a matter of minutes to secure both the occupant and wheelchair, and may not have even seen the wheelchair before. Additionally the vehicle will probably not have top mountings for the shoulder straps.

New vehicle regulations will ensure that lap and diagonal belts are fitted to all passenger seats in small vehicles and minibuses over the next few years. This is because neither a lap belt or a floor mounted lap and diagonal belt provide adequate protection in any type of seat used in a vehicle. This is perhaps especially the case in relation to a wheelchair; although it should be remembered, that whilst ineffective in a 'crash' situation a floor mounted lap and diagonal will provide better restraint than a lap strap only, especially during normal travel and braking.

It was proposed that all wheelchairs in the UK should

comply with the full requirements of ISO 7176 part 19, (especially where the recommended means of restraint for a wheelchair is using a four point harness). This would simplify and improve access to safe wheelchair transportation, through a standardised approach.

Special Seating provides an additional complication with relatively little documented guidance available, although it is currently under consideration by an active ISO group working on a new standard, 16840 pt 4. Other documents which may be of use, include MDD92/07 Transporting children in special Seats, which whilst it doesn't mention wheelchairs is still a useful document (although technically out of print). The New MDA Guidelines DB2001(03) also mention special seating briefly, and recognise the importance of special seating to the safety of an individual.

Special Seating should only be used if:

- ☐ The individual cannot safely transfer (or be transferred) to a vehicle seat or safety seat
- ☐ The individual requires the additional support provided by the special seat
- ☐ You have made a risk assessment of the individual's needs with and without the special seat

On the down side, special seating complicates securement into a vehicle, changes the centre of gravity, increases the loading on the wheelchair and complicates the fitting of the occupant restraint. Conversely a special seat may bring numerous benefits, including enabling the user to access a better quality of life, it may make travelling safer & more comfortable, it may even provide higher levels of protection.

Postural support components should only be removed following consideration of the effects of removal, especially during normal day to day travel. A headrest for example, will often be fitted to a special seat to meet the user's postural needs, which are likely to be similar or perhaps greater whilst in a vehicle, and so should normally continue to be used in transportation. If there is an obvious risk from a particular headrest type, an alternative headrest may be required. There will however always be exceptions when dealing with the complex nature of some conditions, in which case it may be necessary to focus on the reduction of other risk factors.

Kneeblocks (as used on the CAPS II seat only) should continue to be used in transport if normally used at

other times. Instrumented testing has shown no significant increase in the loading on either the femur or hip joint. Kneeblocks on other systems may also be suitable for use in transport but should only be used following a full risk assessment.

The IPEM group is working to develop a pro-forma approach to risk assessment to ensure consistent record keeping, even for the 'simple cases'. Identifying key hazards and providing a means to evaluate the risk for each hazard and a process to help decide upon the action required to reduce the risk. The risk can then be re-evaluated to establish if the result is acceptable.

A basic concept of the process being developed is that the pro-forma approach is being split into three sections, to minimise duplication, and enable each professional to easily work within his area of expertise, whilst respecting patient confidentiality.

No risk assessment should exclude an individual from travel, although alternative means of transport or an alternative route may need to be considered. Ultimately an apparently high risk may be quite acceptable to an individual in order to gain access to transport and life!

Bear in mind, there is a high risk of a serious injury from riding a motorbike, but it is both legal and acceptable (at least to the bike rider).

In conclusion we should remember the 'safety baseline' and that safety measures should be appropriate and proportional and that for each Km travelled by an individual in either minibus or car the risk of being killed or seriously injured is 1 in 29 million. In accordance with ISO 7176 part 19, failure to comply with the provisions of either the standards or guidelines should not be used to limit access to, or the availability of, motor vehicle transportation for wheelchair users.

Workshops on International Standards for Wheelchair Seating: Definitions of Body and Seat Measures (ISO 16840-1)

Natalie Dean *Occupational Therapist
Bristol Wheelchair and Special Seating Service*

During August workshops in Bristol and Newcastle were organised by PMG, led by Barend ter Haar, to present and trial working with the ISO standards. At present they are in final draft form and comments from the workshops will be taken back to the standards committee. The Bristol based workshop was well attended with thirty participants from NHS and private business with a diverse range of experience.

We concentrated on using the "global co-ordinate system", a method of always measuring in three planes: sagittal, frontal and transverse using a clockwise 360° notation. Certainly for the therapists attending this was the main change and challenge, as at present most of us seem to measure only in frontal and sagittal planes (from the front and side of the client) and notate degrees of measurement from our perceived 0° whether into flexion or extension.

During the morning we applied this principle in describing parts of a wheelchair and then moved on in the afternoon to measuring the body. The standards are more prescriptive in measuring the anatomical points for the human body. It was in this area that we felt some revision of wording was needed to ensure the standards remained workable in practice and describe accurately the intended measurement.

Certainly the workshop made the standards seem a lot more useable as they really only started to make sense when trying to practically apply them. Participants felt they may need instruction in some of the body measurements and angles when the standards are in final format. In the meantime, in our service, we will try and get our heads around implementing 3D 360° measurement.

Thanks to all who attended, especially those who were on annual leave or brave enough to attend on their first day in the business.

The 3rd International Matrix Conference and Custom Seating Symposium

The Royal Hospital for Neuro-disability, June 20th, 2002

Dr Steve Cousins

The aim of this one-day conference was to link Matrix use within the context of custom seating. Quoting from the preliminary programme it was hoped 'to engage commercial users, rehabilitation engineers, prescribing therapists, and others in a dialogue about new ideas, working practices, problems, and training needs. To help create a forum for custom seating provision, proposals for presentations, workshops and panels were invited. This conference was conceived as a transition, from the previously successful, but narrowly focused, Matrix technical meetings of the 80's and 90's, to a more general conference where Matrix was just one of the full range of equipment and clinical approaches to custom seating (being planned).

From the comments on the day and the results of an exit questionnaire, the day was very successful with requests for it to be repeated. The morning consisted of seven presentations with four linked workshops in the afternoon. The main linking themes were:

1. Improvements to Matrix seating practice
2. The custom seating prescription process
3. Training needs for custom seating
4. Crash testing and custom seating

In the first of the morning papers **Dr Linda Marks**, a Consultant in Rehabilitation Medicine, discussed, **Fit for Purpose: The Custom Seating Prescription Process**, which was linked to an afternoon workshop exploring two prescription case studies. Her clear presentation discussed and listed the components of history taking; the physical examination; choosing the right system; goal and objective setting; factors affecting individual systems; manufacturing and sub-contractor issues; and outcomes.

The second morning paper was **Demand and Supply: Clinical and Technical Training Implications for Custom Seating** given by **Ray Hodgkinson** the Director of the British Healthcare Trades Association. A main theme of his talk was on "industry led training and development" with, currently, expertise disappearing from special seating. The BHTA registration scheme was discussed; "the collective endorsement of accreditation, education, training and job competency by an approved registration body". The scheme would have various levels, (1) Initial registration, (2) Sector-

specific competencies, (3) Continuing professional development, supported by BHTA through the Competencies Review Group and a Disciplinary Board. The afternoon workshop was tasked with identifying training needs for custom seating and the trade's expectations.

Secrets of The Worlds Fastest Matrix Fabricator presented by **Clyde Peach**, an Orthotist and **Aram Kadish**, an OTR (Director of OT for United Cerebral Palsy of Los Angeles and Ventura County) discussed the introduction of Matrix into the US in the 90's and current clinical practice. Techniques were presented for supplying Matrix seating systems in one day using an orthotic based measurement technique for pre-shaping the Matrix sheet and using a series of modular 'fitting' or temporary covers on the day of delivery and for future use, whilst the definitive cover (supplied later) was being washed. The second speaker took the audience through the case histories of three complex patients who had each been in Matrix custom seating for over three years.

The fourth paper was jointly given by **David Long** a Rehabilitation Engineer, and **Linda Walker** a Neuro-Physiotherapist, on **Hybrid Matrix Seating**. Two hybrid seating systems were discussed via a case study for the Matrix back/Caps II seat hybrid and a 'live fitting' technique described using a Matrix back in combination with a variety of seat bases. The live fitting system, using either Lynx or Matrix, allowed systems to be formed and fitted in the same session, saving on an interfit step. The back interface developed, using PHP System-Trak, allows mounting to a variety of wheelbases.

Crash Testing and Custom Seating was prepared and presented by **Simon Hook** a Seating Specialist. The summary points made in the paper were:

- ☐ Crash testing is not conclusive, however, it can validate construction principles in simulated conditions
- ☐ Extensive work is being carried out to evaluate effectiveness of rearward facing in a frontal impact
- ☐ A successful crash test cannot be seen as a guarantee of the safety of the occupant in any custom made matrix seating

- ❑ The nature of a wheelchair user's disability may well reduce their capacity to withstand the forces created in a frontal impact from the restraint system acting on the individuals body

In conclusion " Remember transportation now is not suddenly more dangerous today than yesterday and should not become the focus for concern. It is also important to remember that while we have a duty to inform our end users of the risks that may be present in transportation Wheelchair users have the right to make their own decisions and should also take some responsibility for their own safety."

The sixth paper was **Structural Testing of Seating Components** by **Dr. Dennis May**, a clinical engineer. Mechanical testing of Matrix and Lynx components were reported. The results of testing an improved version of Matrix, stronger and stiffer than the current version, were also presented.

The final paper was a joint presentation by **Dr Steve Cousins**, a Clinical Engineer and **Gary Derwent**, an Occupational Therapist entitled **Custom Seating and Assistive Technology**. Some of the developmental features of an improved version of Matrix were discussed followed by the limited results of the first five patients fitted. Because of its increase in strength the new design needed less framing but this in turn had structural implications that needed to be recognised. The second part of the paper was about a data-logging system developed within Compass, the Assistive Technology service at the host hospital. Once an easily reproducible position is obtained for a client, a main outcome of custom seating provision, access to equipment and environment is enhanced. Sitting between the patient activated switch and the equipment of choice, the tiny data logger will automatically record key press frequency and duration. This data can then be analysed and used to optimise positioning and mounting of switch equipment on the seating system.

In the afternoon, two workshops were run concurrently, with four to choose from, out of:

- ❑ Tricks of the Trade; New Techniques in Matrix Use; Stuart Morling, Seating Specialist; Clyde Peach, Orthotist.
- ❑ Fit for Purpose: Improving the Custom Seating Decision Making Process; Dr Linda Marks, Consultant in Rehabilitation Medicine
- ❑ Identifying Training Needs for Custom Seating;

Catherine Scott, Seating Specialist

- ❑ Crash Testing and Custom Seating; Simon Hook, Seating Specialist; Alan Lynch, Head of Wheeled Mobility, MDA.

The main points that came out of crash testing and custom seating were summarised by **Alan Lynch** and included below:

1. The subject should centre on the safe use in a vehicle - not crash testing.
2. Crash testing can be a part of a manufacturers own documented risk analysis to allow them to then compile comprehensive information for the end user on how a seat unit can be transported as safely as possible.
3. Many 100,000's of miles have been travelled but not many people have died in wheelchairs and seating units whilst in vehicle transport
4. Occupant restraint (hip and upper torso) should be used. The upper torso restraint should be anchored or have a guide above shoulder height (not to the floor). Occupant restraint should be used laying as close to the pelvis and upper torso as possible.
5. Any contact with the wheelchair or matrix unit by the occupant restraint can seriously reduce its effectiveness.
6. Occupant restraint should be as straight as possible from the user to the mounting in the vehicle through a gap not a hole.
7. Consider type of upper torso restraint - possibly lead by:-
 - a) Shape of user
 - b) How it relates to the matrix and its headrest (clear paths)
8. Consider rear facing options to spread load and allow good occupant restraint anchorage and fit to the user
9. Keep talking to vehicle and service providers to share experience.
10. Report any incidents or near misses to MDA (see MDA web page: **www.medical-devices.gov.uk**)

A more detailed summary of all the above mentioned sessions will appear in a CD of the Conference, incorporating PowerPoint presentations (with attached audio recording of the speakers presentation) and transcripts and summary documents of the workshops. In due course details of how to get the CD will be sent to conference attendees and for others see the conference website: **www.matrixseating.org.uk**

Conference Planning & Education Sub-Committee

"The conference planning & education sub-committee of the PMG committee performs two functions:

- 1) to organise the annual conference with reference to the main committee members,
- 2) to establish the educational and training needs of the PMG membership, and then to aim to meet these needs by either:
 - a) including subjects identified within the main conference, or
 - b) organising one day courses on discreet topics, or
 - c) directing members to courses running throughout the country by way of an accessible list of current courses."

Research Sub-Committee

The Research Working party has recently been established to increase PMG activity in promoting research activity, assist and support PMG members who wish to start research or are already active researchers and increase opportunities for the dissemination of research results.

The working party is still considering the options available to achieve these objectives. These include a regular research forum section in the Newsletter, a register of PMG members' research interests, a conference session devoted to getting started in research, subsequent conference sessions to provide a forum for research discussions, problem solving and peer support, a guide to

the research process to take into account members' needs and the changing research climate, newsletter, conference and personal contact opportunities for individual peer support and review of research ideas, a register of research project ideas for both students and practitioners to access. The projects in this register could gain consensus support from the PMG membership to reflect ongoing service needs and could therefore carry some influence in supporting the relevance of a project for funding purposes.

The working party is still in its early stages and much work has yet to be started but by next year's conference there should be more clarity about the opportunities available to PMG members interested in research.

The current members of the working party are Liz White, College of Occupational Therapists (lead), David Porter, Clinical Engineer, Oxford and Roy Nelham, Clinical Engineer, retired and PMG Committee member. More members are likely to be recruited as the roles of this working party evolve.

"I've never had major knee surgery on any other part of my body"
(Winston Bennett)

PMG NEWS

New Committee Members



Penny Martin is a physiotherapist managing the Salford Wheelchair Service.

Penny has worked both in the UK and abroad as well as the private and NHS sectors. She has a keen interest in evidence based practice and is doing an MSc in Health Practice at Salford University. In her spare time she does several sports including squash and running.



Gillian Wigham has recently taken the post of Project manager with Whizz-Kidz to

set up six children's mobility centres across England. Gillian was previously the manager of Bury and Rochdale Wheelchair Service. Gillian also runs an activities group for over 25's in partnership with her local church. Other interests include walking and travelling.



Natalie Dean I am currently working as a senior Occupational Therapist at North Bristol

NHS Trust and have been here for the last three years involved in all aspects of the Wheelchair and Special Seating Service. Last year I completed the core module of the Greenwich Course and am lucky to work for a trust that actively supports CPD fully.

Membership News

New Committee Members cont.

My interest in seating began on my final year degree placement in Canada working with children with severe head injuries. Since then my working background has been mainly in neurology and I spent a year at the Royal Hospital for Neuro-Disability in Putney, where seating and postural management was an important part of the occupational therapists' role.

I'm currently involved in the sub-committee group organising the York 2003 conference and thinking towards 2004!

In my spare time I've been running a lot recently, completing a 10k race over the summer in aid of MOTIVATION and currently training for the London marathon.



Pam Harper. I Trained as a doctor in Edinburgh. I specialised first in Rehabilitation then in Geriatrics and got a post as Consultant Geriatrician in Perth, Tayside in 1984. I joined SSWG and became Treasurer of

SSWG in 1993. I am also the Treasurer of the Scottish Society of Rehabilitation. I am currently the main liaison person between SSWG [Scottish Seating and Wheelchair Group] and PMG.

Plea to PMG Conference Delegates

The PMG is still owed 2002 delegate conference fee monies.

This costs time and money to chase!

We would like to remind **delegates** of PMG conferences that it is **their responsibility** to ensure that conference fees get paid by their respective Finance Departments.

Thanks in expectation for 2003,

The committee



Like most delegates at the recent PMG conference, we really enjoyed the Aldersea Lecture given by **David Constantine** from **Motivation**. Motivation is a charitable organisation which works in developing countries on sustainable projects making locally suitable wheelchairs and providing training for wheelchair users. Our service traditionally has some links to Motivation, as their UK base is within our locality. So when the opportunity arose to raise funds for their cause by running 10 kilometres we were inspired.

Some scoffed at a mere 10k, but having only run a few miles at most it seemed challenge enough for us. On 21st July we ran in the British Open Jubilee 10k Road Race, with 15,000 other runners, on a route taking us round Piccadilly, Westminster and along the Embankment to St Paul's Cathedral. We ran in 56 minutes, which we were extremely pleased with, and best of all managed to raise over £700 for Motivation.

We would like to thank our sponsors: **BES Rehab, Helping Hand, Invacare, Jenx, Medical Support Systems, Optimum Mobility, Ottobock, Qbitus, Relief Orthotics & Southwest Seating.**

Motivation run a variety of fundraising activities throughout the year. If anyone is interested please contact **Kaeti Humphries at Motivation on 01275-464012.**

Jane Harding & Natalie Dean

Bristol Wheelchair and Special Seating Service

Scrap Heap Challenge - 'The Chairmen'

Gerald Cullen, Ron Clarke, Gary Derwent

Scrap heap Challenge is a Channel 4 TV programme in which two teams of engineers have 10 hours to build a machine using only parts that they can find in a large scrapheap. The machines built in the past have included windmills, drag racing cars, amphibious vehicles, rockets, speedboats and even mini submarines.

A team from the biomedical engineering department at the Royal Hospital for Neuro-disability in Putney entered for the fourth series. The team, called '**The Chairmen**' consisted of Gerard Cullen as captain and Ron Clarke, both Engineers, and Gary Derwent, an OT pretending to be an engineer, who had to take a crash course in welding! Our surprise on being selected was nothing compared to that when we were told that it was to be filmed in **California**, rather than the usual East End of London.

In early April we jetted off to Los Angeles. Our first shock was that Los Angeles was actually quite cold and the second was that our competitors were a team representing the **Royal Air Force**. The first day was spent in costume fitting and tools training. We were kitted out in rather fetching orange 'dayglo' overalls with silver trim and looked like a cross between Star Trek and the Village People!

The big filming day began at 5.30 am the following morning. Before the challenge even started we spent four hours filming shots of us running about the scrapheap trying to look dramatic while the crew sprayed smoke in our faces and shouted 'look mean'! Finally, the challenge was announced: we had to

build a torpedo, and our official 10 hours began. Both teams needed motors urgently, and unfortunately the RAF came across the best specimens first and whisked them off to their workshop. Finally, finding only one decent electric motor, we had to radically redesign our torpedo with the main motor for propulsion and a couple of tiny electric motors for steering. It looked 'barmy', in the words of the shows presenter, but seemed to work.

During the whole ten hours there were always at least five cameras operating and we quickly got used to having a couple of lenses stuck in our faces when doing anything. If you didn't want a clip to be used, the judicious use of a choice swear word would render that bit of film useless!

10 hours may seem like an awfully long time but it goes very quickly. **We had to locate parts to serve as the hull, steering systems, buoyancy and ballast as well as the crucial motors and serviceable batteries.** We had to calculate buoyancy equations and make sure that the torpedo weighed exactly the same as the amount of water it displaced, and we had to cut, tape, glue and weld the whole lot together, with numerous false starts and changes of plan dictated by the raw materials we found.

To determine the winner each team had **three shots across a 50 metre pool to hit three targets** on which the other team were standing. Both torpedoes were equally accurate, but **ours was a great deal faster** and so took us through to the next round after winning a simultaneous shoot-off.

In August we returned to Los Angeles for another batch of filming. This time the temperature was distinctly hotter! Our opponents were a team of development engineers from **Jaguar cars** and our challenge was to build a mobile crane, capable of hauling quarter ton chunks of car along a 300 yard course as fast as possible. The engineering skills required were very different to the first challenge and involved lots of heavy duty welding, luckily Gerard and Ron were up to the task and Gary was good at carrying things around! We built our crane on top of a huge truck chassis, and a good deal of our build time was spent getting the chassis into working order, including the fabrication of a replacement drive shaft and a makeshift clutch. The actual crane mechanism was relatively simple in comparison. The opposition went for a huge see-saw like contraption with their team acting as a counter-weight while our crane relied on a traditional boom and winches.

The test day was blazing hot and wet **towels over the head were mandatory** if not exactly the fashion item of the year. We had two periods of half an hour to lift as many chunks of car from one end of the course to the other. The competition was tight but our winching proved to be slightly slower than the Jaguar boys see-saw and we were pipped at the post. The Jaguar team went on to win the entire series. The fifth Series of Scrapheap challenge is currently being shown on channel 4 on Sundays at 5.30pm.

BURSARY

Open to **students** from any back ground

The bursary covers the **cost of: conference and travel**

Just write in and explain how attending the conference will be of benefit to your study/training and the anticipated benefit to clinical practise.

A condition of acceptance will be to provide a report for Posture & Mobility on the 2003 PMG annual conference

BURSARY

Chairman's Report for 2002

Roy Nelham

Introduction

The PMG is 10 years old - this being our 9th Conference since being formed on 8th April 1992 at the second National Wheelchair and Special Seating conference for the devolved wheelchair services. Many of us have therefore been "conferencing" together since 1991. The PMG was named to reflect the desire to encompass postures other than seating but not necessarily include all forms of mobility as this is too wide. The intention is, therefore, that the PMG provides a forum for 24 hour postural management and wheeled mobility. I am pleased to note that this forum has gained in strength during the past year as the membership has continued to grow. There is great potential to attract even more participation from our colleagues who are interested in posture and mobility and who work in all areas of health and social care. We all have a role in raising awareness with our colleagues of the benefits of PMG membership and collaborative working.

Committee

The now 15 strong committee has been very active over the year, starting work on several issues via small working groups. These groups are covering the topics of:-

- competencies (with BHTA),
- future conference planning,
- international conference 2005,
- guidelines updating,
- newsletter and peer reviewed journal.

I am indebted to the committee members for the hard work they have put in throughout the year. Without their significant efforts the PMG would not be able to achieve the progress it does. We have been meeting almost monthly as well as increasingly doing business by e-mail, now that we are all hooked up! The new committee will explore increasing use of e-mail to save more time and will also review the meeting venue, which has been London for as long as I can remember.

As with any group of very busy people we have had our casualties along the way. Christine Turner resigned to keep her work load within healthy limits, Elizabeth White changed jobs and has more responsi-

bilities and less contact with this field of activity and Anthony Stockton changed jobs, became self employed and was unable to continue as a committee member.

This was my last year as Chairman and although I am also taking early retirement from Chailey Heritage I am remaining on the committee for up to three years for as long as I can make a contribution. My role as Chairman would not have been possible without the support of the other committee members and I feel we really work well together as a team. My thanks to you all for this.

Website

The PMG website has increased in content and usefulness throughout the year under the effective management of Dave Calder. This conference programme and the registration processes were all available on line, the revised Guidelines are progressively to be added section by section and the newsletter will also be placed on the website a suitable period after publication. The report on this conference will also be posted soon after the conference. A new PMG Leaflet is being designed and this too will be posted when finalised. Please let any committee member have your comments or suggestions for website improvement. We have plans to address the colour scheme already!

Guidelines

Led by Dave Calder, the working party are gradually updating the PMG Wheelchair Guidelines (Green Ring Binder!) section by section. As each one is completed it will be published in the Newsletter and posted on the website to enable you all to update your own copies.

There are other groups working on various guidelines related to our services and I believe that PMG has a role in bringing these together for clarity and a focused purpose. Material presented and discussed at this conference will, if adopted, make a contribution to this process.

Newsletter

Under Phil Swann's leadership the editorial group continue to publish a high quality Newsletter. The regular

heavy workload and associated deadlines to achieve this are not to be underestimated. Please remember that we can only publish the material we receive so if you want the Newsletter content to remain interesting please continue to send in your contributions. Letters to the editor are welcome. Work has yet to begin on a peer reviewed journal.

Liaison with SSWG (Scottish Seating & Wheelchair Group)

Discussions and collaboration with SSWG have progressed during the year and we have reached consensus on the following issues;

- A PMG and SSWG committee member now attends the other group's committee meetings for ongoing liaison and discussion on several topics of common interest.
- SSWG will have an input to the programme content for the 2003 PMG conference.
- SWG will join with PMG and other groups to organise the proposed international conference in 2005
- SSWG and PMG will recognise membership of either group as qualification for members' discount for registration at conferences, seminars etc.
- SSWG and PMG will work together on a peer reviewed journal and for the time being continue to publish their existing individual Newsletters. Newsletter articles such as meeting reports will be shared as appropriate.

The above agreements are very recent and more work is required to put them in place. I believe that our field of activity will surely benefit from increasing collaboration of this nature.

Charitable Status

The PMG is almost there. Subject to some further, minor changes to our constitution being agreed at this AGM the PMG will be able to register as a Charity very soon. We are indebted to Barend ter Haar for his perseverance throughout this past year in putting our case to the Charity Commission.

Finally.....

..... I feel honoured to have been your Chairman for the last three years and I would like to thank all members for supporting your group and contributing to the objectives to improve the quality of our services. I

also thank the non-members who attend our conferences and provide their contribution to our progress. With such benefits of membership why are you still non members?!!

Thank you everyone and I look forward to continued progress and success of the PMG.

Education Questionnaire

**Fill it in
&
post it in**

only 5% returned so far

Thanks in anticipation

Note:

2002 conference feedback will appear in volume 17 due to a lack of space in this issue.

Thanks
Phil.

Research & Development Register

The role of research within Wheelchair and Seating Services and the way in which PMG can assist this research has been discussed recently at Committee meetings. One area where it was felt that a useful contribution could be made was in establishing a register of research, development, clinical audit or benchmarking studies in the fields of wheelchair and special seating service's.

Anyone who has undertaken any studies in this area who would like to register them centrally within the PMG register may do so by completing the form enclosed in this magazine, which is also available on the PMG website. We are, at this stage, only seeking to have a record of the subjects of such research and a contact where further details of the research can be obtained. This might be of assistance when, for instance, someone was looking to undertake an audit and wanted to see whether a similar audit had been undertaken elsewhere in the country.

Services are encouraged to register as many projects as they can and share the work as a useful resource.

Completed forms will at the outset be collected by Liz White at the Disablement Services Centre in Bristol. A similar exercise is being undertaken by our colleagues in Scotland under the auspices of the Scottish Seating and Wheelchair Group (SSWG) and it is hoped that the two registers, which will be available on the separate websites, may be accessed by anyone working in the fields of wheelchair and seating.

For any further information please contact Liz White at the DSC in Bristol:

Liz White

98 Carlingcott

Bath

BA2 8AW

E-mail: white@pilgrims2.freemove.co.uk

2nd Annual ADGE

Anyone at the PMG conference in Nottingham will have been aware of the intense rivalry that developed in the 2nd Annual After Dinner Games event (ADGE) organised by Phil Swann and his trusty companions Dave Long and Russ Jewel. The teams were:

The team with no name

Steve Crouch, Kim Barton, Richard Slyman, Alice Goldwin, Roy Nelham

The Gloucester Olds spots

Babe, Miss Piggy, Baem Batty, Pork Scratchings, Pigling Bland

Pims

Pat Postill, Wendy Murphy, Hannah Snowsill, Jenny Carter, Cath Peedle

Midland Movers

Dave Harrison, Tim Millis, Pete Rouell, Krys Jarvis, Anitz Bramer

Last minute entry

sorry didn't get names

Sponsorship money was raised by the teams from their respective supporters and was to be donated to the charity of choice by the winning team. The relay event started with the Balloon race (passing a balloon between the knees down the line of team members), then on to the fish race (fan your fish from A to B). The blindfold obstacle race followed causing much amusement - the Gloucester Old Spots gaining an early lead closely followed by the team with no name. Blow ping pong caused a few problems with a couple of teams diviating from the spirit of the rules (hitting the ping pong ball indeed!). The broom spin was next with volunteers on stand-by to prevent contestants carerering into chairs. The final event was Mummies. 'I've never used a whole roll of loo paper so quickly,' reported Miss Piggy.

The winners were the Gloucester Old Spots, who donated the prize money to Sarah Davies for the Mexican Project (write up in vol 15 of Posture and Mobility).

Thanks to everyone who participated, some of whom are imortalised on the front cover!

Phil Swann

"Sure there have been injuries and deaths in boxing - but none of them serious"
(Alan Minter)

Post Bag

Dear Editor,

END OF LIFE DISPOSAL - WHEELCHAIRS, CUSHIONS & SEATS

I have been giving some thought, to what may be the outcome, of the European directive that is being drafted, and the following UK legislation on the disposal of some products. It is clear that batteries, tyres, foam, and plastics are going to be high on the list.

Whilst their association with motor vehicles have made the press, little thought seems to have been given to the fact that these products are also used in wheelchairs.

Around Leeds there has been a change in attitude to disposal of some products, batteries have to be removed, in some cases foam, plastic and tyres. Where a person could have got a few pounds for a scrap car they are now charged £250 to dispose of it.

What lies ahead for our industry and services? A disposal cost built into the price of new products, if manufacturers are made responsible for the disposal costs? Services being charged to dispose of existing systems?

Are we going to wait until this legislation drops in our laps, hoping it won't include us? Or should we be doing something about it now?

Yours faithfully

Michael Hare

Senior Rehabilitation Engineer

Dear Readers,

We are reviewing two areas of our work at the Gloucester Wheelchair Centre and would appreciate any information you could send regarding:

1. Perceptual Tests used in assessment of EPIC/EPIOC users
2. Programme for Wheelchair Accreditation Courses/brief description of course contents and areas covered.

Yours faithfully

Annabelle Rothwell, *Physiotherapist*

Kathy Rea, *Occupational therapist*

Dear Annabelle and Kathy,

If you don't get a response reference your first point you could get in touch with Andrew Frank and the EPIOC team at Stanmore tel. 02089549581.

Dear PMG

Following the National Forum of Wheelchair User Groups annual conference in May where the theme was Working together securing a quality Service. I was wondering why wheelchair users were not permitted individual membership to the PMG.

The above conference covered the topics of minimum standards for wheelchair services, the work of emPower in supporting the provision of high quality equipment from Wheelchair, prosthetic and orthotic services and other topics related to the greater involvement of users in all areas of equipment provision for disabled people.

As PMG is primarily about the posture and mobility of disabled people and is also concerned about the very things discussed at this conference it would seem that wheelchair users themselves may have a great deal to contribute to PMG.

Individual users may be unaware of the commendable work that PMG does in this specialised area and allowing users to be members of the PMG surely could only be of benefit to both users and professional groups who make up the present membership.

The clinical aspect of the PMG annual conference may not appeal to all users but I think it is important that users are aware of the work that goes on by professionals in the clinical field on behalf of the user to ultimately improve the services mentioned above.

It would be interesting to hear other members views on this subject.

Sincerely,

Gillian M Wigham,

Head OT Bury and Rochdale Wheelchair Service

Please reply to:

philswannptmy@aol.com

"Strangely, in slow motion replay, the ball seemed to hang in the air for even longer."
(David Acfield)

Notice Board

Date	Location	Title	Contact
2003			
January			
16	Preston	Society for Research in Rehabilitation	tel. 01772 893 837 website. http://www.srr.org.uk/
February			
26 - 27	London	Moving & Handling People Conf.	tel. 020 7874 0298
March			
14	Nottingham	Whiz Kidz Study Day: Powered Mobility for Young Children	tel. 0207 233 6600 tel. 0115 942 0391
18 - 19	York	11th National Conference of the PMG	tel. 01223 882105
25 - 28	Include 2003	From Fashion to workplace design	tel. 020 7590 4242 website. http://www.hhrc.rca.ac.uk
April			
2 - 3	Glasgow	Independent Living Scotland	tel. 020 7874 0337
May			
7 - 10	Germany	12th International Trade Fair for Rehabilitation	tel. 0231/12 80 10 website. http://www.rehab-fair.com
September			
31/08 - 03/09	Dublin	7th Conf. for Advancement of AT in Europe	tel.+353 1 8057523 /20 email: info@atireland.ie
2004			
September			
7 - 10	Bournemouth	International Functional Electrical Stimulation Society	tel. 01722 429 065 email. ifess2004@salisburyfes.com

Check out the Assistive Technology web site by logging on to:

AT Forum info. <http://www.fastuk.org/atforum.php3>

The national wheelchair managers forum website is now live at:

Wheelchair Managers <http://www.wheelchairmanagers.nhs.uk>

The Chailey Approach to Postural Management

Course Dates 2002 - 2003

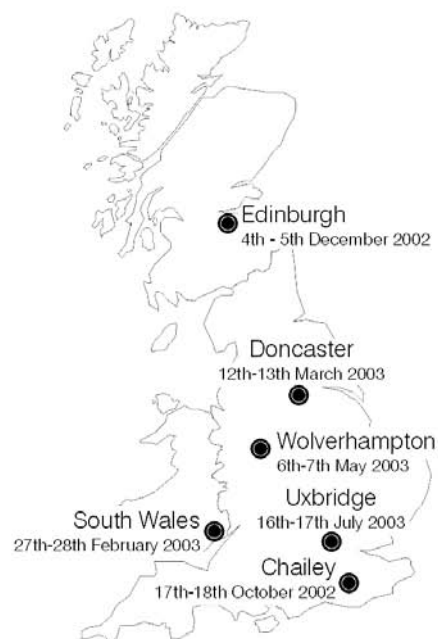
This two-day course will develop your knowledge of the Chailey Levels of Ability as an effective assessment tool to measure postural ability. This information is then used to work out programmes for twenty-four hour postural management. You will learn about the design of equipment, how it compliments the Chailey Levels of Ability and how to use the equipment as part of a postural management programme. It is suitable for all healthcare professionals who want to develop or refresh their knowledge of postural management and equipment related issues.



Active Design Ltd
68K Wyrley Road
Birmingham B6 7BN
Tel: (0121) 326 7506
Fax: (0121) 327 8807
E-mail: courses@activedesign.co.uk
Web: www.activedesign.co.uk/courses

Course cost £150.00

This includes a copy of the book 'The Chailey Approach to Postural Management', lunch and refreshments on both days, an attendance certificate and a resource pack at the end of the course. Price excludes VAT.



Education & Training

IMPETUS INVACARE TRAINING SCHEME

An assessors' training programme that has been given **formal recognition** by the **College of Occupational Therapists** is being offered to all professionals working in the field of mobility & seating provision by Invacare Ltd, a leading manufacturer of mobility products. It is also being supported by the BHTA as a stepping stone towards providing evidence of competencies for the new BHTA Registration Scheme.

The Impetus Training Programme, which is facilitated by **Christine Turner** and **Fiona Reeks**, provides a flexible solution to improving competence levels for providers of high quality care when prescribing products. There are five different modules - two of which can be undertaken by distance learning - that can take less than 20 hours in total to complete.

The modules include:

1. **Understanding Disability**
2. **The Principles of Basic Seating**
3. **Effective Prescription and Principles of Assessment**

4. **Social and Environmental issues to consider when prescribing mobility products and seating**

5. **The Prevention of Tissue Trauma in Mobility Seating**

On successful completion of each module, candidates will receive a certificate and on completion of the full Impetus programme, they will receive a lapel badge.

The programme is being operated on a 'rolling' basis throughout the UK and is therefore widely available.

Invacare's Clinical Application Specialist, Christine Turner, who initiated the course comments: "Many of us who've worked in the field of disability equipment provision for a number of years find there are often gaps in their knowledge that can be difficult to personally identify. The Invacare Impetus training programme may be just what is needed to increase awareness of all holistic considerations."

For more information get in touch with the Invacare Marketing Department, tel. 01656 664321, fax. 01656 648479 or email: uk@invacare.com

If you're running a training course and would like to inform PMG members through Posture & Mobility, so that they may benefit from CPD, please get in touch with **Elizabeth White**, details on page 2.

"The lead car is absolutely unique, except for the one behind it which is identical"
(Murray Walker)

Useful Virtual Training Web Site

If you want to improve your internet information skills, then visit the free internet virtual training suite at:

www.vts.rdn.ac.uk

This site offers online tutorials designed to assist with coursework, literature searching, teaching and research. These will help you improve your internet information literacy and IT skills, and review your critical thinking and evaluative abilities.

The Health and Life Sciences section of this site contain elements of particular relevance to rehabilitation professionals, and feedback is welcomed.

The World of the Web

Dave Clader

The World Wide Web is a strange and yet enthralling medium providing information that is good, bad and indifferent. My latest trawl started from a discussion (or was it an argument?) on what a person wanted in the way of mobility assistance and self-esteem. I had a quick look at people's interpretation of the perfect wheelchair and found a site called Adorn.

www.adornequip.co.uk

'Adorn, equip' is an exhibition which explores issues around the design of equipment and accessories used by disabled people. Consultation between disabled people and artists, makers and designers, has inspired the production of beautiful, functional objects and thought provoking work.

The exhibits represent many aspects of day to day life and include ergonomic ceramics and glassware, fashion knitwear featuring subversive slogans, personalised mobility aids, such as sculptural crutches, contemporary orthopaedic slippers, medical aids such as silver inhaler holders, which feature poetic inscriptions, interactive sensory furniture, and much more.

This national touring exhibition was originated by The



City Gallery, Leicester. It is the result of three years of research, partnerships and consultation with disability organisations and groups of disabled people. The project is the beginning of a long-term commitment by the Gallery to increase access to the visual arts and crafts. The overall project has three different parts: a touring exhibition, an audience development programme and a 'Year of the Artist' Residency.

The Go Go Gadget Wheelchair pictured was produced by Felicity Shillingford and Paul McGarry with Garry Robson.

The chair is inspired by cartoons such as 'Wallace and Gromit', 'Inspector Gadget', and Heath Robinson. Instead of using the standard National Health Service frame, his own version is made from two mountain bikes and a shopping trolley. Handy attachments have been added, including a camera and drinks dispenser, powered by "thought waves" and a 12 volt car battery. The inflatable raft is still being perfected and will be available with the mark 2 model (I've heard that before!).



"Improving the Outcome" Provisional Programme 18th-19th March 2003

Monday 17th March 2003

19:30 Ice breaker reception - a chance to meet new members and conference goers

Tuesday 18th March 2003

08:00 Registration

09:00 Opening Address

Russell Jewell (PMG Chair)

09:10 Outcomes of Clinical Intervention

Rosie Cooper (Pittsburgh, USA)

09:40 "The Wheelchair Services Collaborative
- Crossing the Divide".

Sally Howard (NHS Modernisation Agency)

10:10 Coffee & exhibition

11:10 Free papers / case studies

12:30 Lunch & exhibition

14:00 Parallel sessions:

PS1 Positioning in early life
Outcomes for Duchenne Muscular Dystrophy

David Porter (Oxford Centre for Enablement)

Shona Michael (Leeds Medical Physics)

PS2 Getting started in research
What has been learned from the
Wheelchair database?

tbc

Robin Luff, David Calder
(Kings College Hospital)

PS3 Waiting list management
& other modernisation initiatives

Henry Lumley (Bristol DSC) and

Sally Howard (NHS Modernisation Agency)

PS4 Technical contributions to improved outcomes

Rory Cooper (Pittsburgh, USA)

15:30 Tea & exhibition

16:15 Parallel sessions: (repeat)

17:45 Reception

19:30 Conference dinner & entertainment

Wednesday 19th March 2003

08:00 Registration

08:30 Wake up sessions:

WS1 Improving the outcome for children through mobility

Ros Ham & Anne Harris (Whiz Kidz)

WS2 Assessment of the client with severe & complex
disability & evaluation of outcome.

Marie Kelly (Oxford Brookes Uni.)

WS3 Customised Support Systems: improving the outcome

Pauline Pope (OCE)

WS4 tbc

09:30 Post spinal surgery management

Bart van der Heyden

09:55 Management of Spinal Injury post trauma

Lone Rose (Stoke Mandeville)

10:20 Causes & alleviation of pain for wheelchair users

tbc

10:45 Coffee & exhibition

11:45 AGM

12:10 Aldersea Lecture

David Thornberry (Plymouth)

13:00 Lunch

14:20 Service Dogs - latest research

Helen McCain (Dogs for the Disabled)

14:45 tbc

15:10 Improving the outcome - a user's perspective

Colin Stewart

15:40 Prizes & close

16:00 Tea