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Letter from the Chairman

If you are reading this letter, you are almost certainly a member of the only specialist society in England and Wales dealing with clinical issues concerning wheelchairs, mobility and posture. In that case, greetings! The membership total however does not reflect the number of professionals involved and in fact is not even equivalent to one member per provider. Your Committee has embarked on a recruiting drive to boost membership since the greater our numbers, the greater our influence. Every member has an important part to play in this; it is after all your special interest group.

The International Conference in Dundee is approaching rapidly. This represents the annual PMG conference and we are involved in this major scientific meeting in association with the Scottish Wheelchair and Seating Group. The programme is comprehensive and of a very high standard and represents a chance to update your knowledge of the world scene without the bother of traveller's cheques and Sturgeson. Everybody who is active in our field - users, carers, therapists, engineers,

doctors, managers - should make every effort to attend. The PMG has made a limited number of bursaries available to help with the costs but in a rational health service our employers should recognise the importance of attendance and fund accordingly.

The organising committee for the Conference aim to achieve training recognition for all the professional groups likely to attend. The extraordinary value for money which this Conference represents together with training opportunities should be powerful arguments for your employers. I look forward to seeing you all there and hearing your views at our AGM which will be held during the Conference. As a final inducement to attend, there will be a reward to each and every paid up (the Treasurer insisted) member present at Dundee. You will be able to purchase any professional publication obtainable through the stands in the Exhibition and receive a subsidy of £40.00. This seems, to your Committee, an appropriate manner in which to promulgate our educational role. So get choosing that book...

You will recall from previous Newsletters that this year the PMG intends to publish a completely revised edition of guide-lines to purchasers and providers of wheelchair and seating services. I am pleased to say that, after much hard work, in particular by David Calder, this nears completion and will be introduced at Dundee. Members will get a free copy, yet another reason to join and remain an active member.

At last year's AGM, the issue of provision for children under the age of three was raised. It was apparent that some providers were misinterpreting the original Disablement Services Authority guidance. I should know, since I was primarily responsible for it. Your Committee is interested in any documented examples of refusal to provide appropriate equipment to very young children and would be grateful for information. The PMG could then use its muscle to intervene.

I was gratified to note that a sister organisation has followed our example from last year's Conference and introduced a debate into their forthcoming conference. It proposes that the internal market has damaged the provision of health care services. This is an issue of great importance in our field and is particularly apposite given the recent change of government. My personal view is that the purchaser/provider differentiation has been beneficial to health care provision and that some elements of the internal market have also helped. The market for equipment is, however, still relatively immature after the ending of the Ministry monopoly and it may be a little early to judge. Why not put your views to the membership via the Newsletter?

In anticipation of seeing you ALL in Dundee, best wishes. May your wheels stay round, your seats orthogonal and your surface matched.

Editorial

Greetings to readers of this issue of the PMG Newsletter. A considerable time has passed since the last publication back in December '96, where Alan Turner Smith, Secretary of the Posture and Mobility Group, announced that he would no longer be Editor. The production of the Newsletter has depended on his hard work, dedication and goodwill, ensuring that contact has been maintained with members between the annual conferences. Increasing demands now leave him with no time to continue as editor, and on behalf of all the members of the PMG, the new editorial team would like to thank him for the effort and time he has given to this task.

It is not surprising to learn that there was no one else prepared to take on this task single handedly and as a result, the Posture and Mobility Group committee have appointed four persons to shoulder the responsibility: production of the Newsletter has been assigned to me, Phil Swann Clinical Engineer for Special Seating NW Thames, with support from three committee members; Julia Cunningham, Physiotherapist and Wheelchair Service Manager for Scarborough, Dave Calder, Rehabilitation Engineering Manager, Stanmore and Patsy Aldersea, Occupational Therapist and Wheelchair Service Manager for Merton and Sutton. For those of you who've never met us I've included

some photos with a few lines about each of us, page 16.

As you may have noticed, the format of the Newsletter has changed I hope you approve. Still, the aims are the same; 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. This can only be achieved if members are willing to put pen to paper and keep the editorial team informed of local matters that can be shared, for the benefit of all.

The Newsletter has been split into three broad categories; Articles, Feedback Forum, and Regulars. Articles covers all issues relevant to the PMG aims, Feedback Forum aims to share with members information from, for example, special interest group meetings, conferences and courses. Finally, Regulars concentrates on topics that will appear in each issue; informing members of PMG news, dates of meetings, courses and a chance to pose questions for debate.

Thanks to all those contributing to this issue. I hope you enjoy it, and I look forward to receiving your contributions for January 98's edition.

Phil Swann

The EPIOC Funding Scheme

One Year on ~ a Case of Qualified Progress

It is now one year on from the Minister's announcement that Electrically Powered Indoor Outdoor Chairs (EPIOCs) were to be made available to severely disabled people. The Muscular Dystrophy Group (MDG) has analysed the results of a survey of all health authorities and individual wheelchair services and examined to what extent some of the NHS guide-lines (NHS Executive 1996) key provisions are being put into effect.

Promoting an inclusive approach

The first significant indication that the pace of implementation was not the only problem besetting the scheme, came in the Autumn. Children, one of the MDG's largest client groups, were being barred from assessment for EPIOCs by some Wheelchair Services' eligibility criteria.

This was in contravention of the guide-lines which had specifically referred to the responsibility of Wheelchair Services to ensure children benefit.

By the end of October, MDG was aware of several cases where criteria specified a minimum age. Following correspondence with the chief executives of these NHS Trusts, MDG obtained confirmation that all references to age would be removed. At a subsequent meeting with MDG, the then Health Minister, Simon Burns MP, reiterated the Government's commitment to including children within the scheme. MDG followed up this meeting with a letter to all health authority chief executives, seeking clarification of their own authority's position on the question of age-related criteria. All made clear that children would not be barred on the basis of age.

However discrimination against children remains a problem, often taking the form of, for example, serious reservations about issues of perspective about speed and distance. This is despite the experience of, for example, parents with children having Spinal Muscular Atrophy, the earlier they are exposed to the use of an EPIOC, the sooner they learn to manoeuvre the chair safely, much as a non-disabled child acquires the motor skills involved in walking.

Such discrimination was unfortunate but not entirely unpredictable. In the absence of clear instructions

from the NHS Executive, that minimum age requirements were not acceptable, some health authorities and Wheelchair Services had made their own interpretation. There was not one that took account of a young child's early need for independent mobility or the anguish of both child and parents when told that, by implication, such a crucial quality of life factor was insignificant until a certain age.

Consulting the user.

Resources are finite and there will always be demands for increased funding. Notwithstanding the continuing pressure on resources however, serious questions remain unanswered, not least how greater consultation with user groups could help avoid these unnecessary discrepancies and the confusion they cause.

User groups can be a helpful source of information and advice. Yet despite the fact that a startling 43% of wheelchair services told MDG they found the NHS guide-lines unhelpful, 30 % of them did not consult user groups. Moreover, 21% of Wheelchair Services said they had not been involved in the consultations with user groups which had been held at health authority level. Although the guide-lines encourage contact with specialist staff of voluntary disability organisations, MDG is not aware of any formal overtures having been made for liaison between the charity's specialist staff and individual Wheelchair Services. MDG is just one charity that can offer specialist advice and would welcome the opportunity for greater liaison.

Why 'Batteries Not Included,' must continue.

The Batteries Not Included campaign (co-ordinated by the MDG) was the instrument which influenced the government's decision to introduce the EPIOC scheme. For many severely disabled people, the opportunity to step outside their front door is still a dream. That is why, until the scheme is seen to be working well, the Batteries Not Included campaign will continue to lobby constructively for improvements. MDG has a duty to communicate the message of need and of hope to both users and service providers. The NHS Executive, health authorities and Wheelchair Services also have a duty to communicate both to users and themselves. In an age of finite resources, none of us can afford to ignore the infinite benefits of effective

communication. The alternative is to weigh down an already stretched system with the costs of unnecessary confusion and concern.

MDG looks forward to working with the Government and the Health Service to ensure that there is only one message to communicate at the end of the scheme's second year: Success.

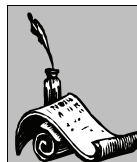
Kevin Shinkwin, (written for Arthritis Care).
Parliamentary Officer of the Muscular Dystrophy Group and member of the National Disability Council.

References:

NHS Executive (1996), *Wheelchair Voucher Scheme Health Service Guide-lines* HSG (96) 53.

Kevin Shinkwin has recently been involved in a review covering the first year of EPIOC provision in England.

The guide-lines: theory and practise. A review of the first year of the EPIOC funding scheme. Muscular Dystrophy Group 0171 720 8055.



The EPIOC scheme will be the subject of a future PMG newsletter and we would welcome your views on matters mentioned in this article as well as any other comments or details on how the scheme is running in your area.

The Transport Debate ~ Travelling in Vehicles while in a Wheelchair

Transport is a growing area of concern for people in wheelchairs. There is some misunderstanding amongst both professionals and users, concerning the regulations covering the safety of wheelchair users who are transported in their wheelchairs.

The Department of Transport has set up a working group with the wheelchair manufacturing industry to draft requirements for transportable wheelchairs. These requirements should be published later this year in the form of guide-lines which will provide the manufacturers with clear targets against which they can test their products. International standards relating to tie-down and other restraint systems are also underway though not yet published.

Whilst waiting for the Department of Transport guide-lines to be finalised, the Joint Committee on Mobility for Disabled People (JCMDP) has issued its own guide-lines. These recognise that for some disabled people in some circumstances, travelling in a vehicle whilst seated in a wheelchair may not be as safe as travelling in a seat that is an integral part of the vehicle in question. However for others who require special seating and support the reverse can be true.

As stated by the JCMDP document, absolute safety can never be achieved and whilst endeavouring to achieve this unattainable ideal by making wheelchairs and restraint equipment ever safer and safer, it is likely that such systems could become both more costly yet less convenient, or even unusable, particularly for independent users. JCMDP are convinced that the primary concern of the wheelchair user is to be able to travel in the manner most appropriate to each individual and this may be seated in their own wheelchair. Whilst seeking to achieve ever higher degrees of safety, the freedom of disabled people should not be restricted. Certainly any debate on this matter should be based on accurate risk assessment and not based blindly on crash worthiness or imagined worst case scenarios. All discussions should, in any case, include representatives of those who will be affected by any decisions taken - namely, wheelchair users.

(Based on Guide-lines produced by the Joint Committee on Mobility for Disabled People)

Patsy ALdersea
*Occupational Therapist, Wheelchair service Manager
Merton and Sutton*

Dundee '97 ~ PMG Annual Conference

WHO's WHO at Dundee '97

Several organisations have had a hand in getting Dundee '97 on the road. However the Scottish Seating and Wheelchair Group, being on site, have taken the brunt of the housekeeping. The Tissue Viability Society is also associated with the conference.

Scottish Seating and Wheelchair Group

The SSWG provides a discussion forum for all people with an interest in Wheelchairs and Seating. The membership consists of wheelchair users, carers, professionals and manufacturers and currently totals approximately 150 people. The professionals are drawn from a wide variety of disciplines including physiotherapy, occupational therapy, engineering, medicine, nursing, etc. SSWG contributes to training and education by organising two one day seminars per year. It also provides information to the membership via newsletters and bibliographies. Through the sub-group, comprising of staff from all Centres in Scotland, it has a role in influencing national policy and the shaping of the NHS service. It has recently established a further sub-group to stimulate developments in training and education for professionals in Wheelchairs & Seating.

Posture and Mobility Group

Turn to PMG news for a summary of the PMG role.

Tissue Viability Society.

Based at Salisbury General Hospital the TVS is open to anyone with an interest in pressure management. Therapists and Rehabilitation Engineers form a minority group in the society which is heavily dominated by the nursing profession. The society programmes tend to concentrate on pressure sores and ulcers and their care but there are an increasing number of articles of relevance to wheelchair users and prescribers in the quarterly journal. Recent research and local projects undertaken by wheelchair services, clearly show that pressure management is a multidisciplinary responsibility requiring an holistic approach if the number of pressure sores is to be reduced. All attending the conference will be given the opportunity to learn more about the TVS and to hear of current developments in this field from speakers taking part in the plenary sessions and also by attending relevant workshops and teaching sessions.

International Speakers at Dundee

The following list gives general information about most of the international speakers presenting at Dundee. It gives an idea of variety and experience to be expected and a starting point for conversation at the bar, if you need it!

Peter Axelson:

Design Engineer based in California, USA who is heavily involved in ISO test developments and their applications. He has a very strong interest in recreation technology for disabled people, developing many concepts which he tries out for himself.

Chris Bar:

Recently moved to the USA from Cardiff, he is an engineer by background and has developed many new solutions to many seating problems. He has a particular interest in the subject of pressure sores and the long term monitoring of pressure.

Tom Bendix:

A Physician from Denmark who has published widely on the subject of back pain. He is one of the few people to have looked at fundamental causes of back pain associated with seating.

David Constantine:

A Design Engineer who runs an organisation concentrating on developing designs and services for the provision of wheelchairs in developing countries. His work has been the subject of an award in a design competition on the television.

Rory Cooper:

Based at Pittsburgh University, USA, he has an engineering background and is probably one of the most active people in the study of wheelchair propulsion, the development of new designs and test methods associated with ISO standards.

Peter Engel:

A Physician from Germany who has studied the biomechanics of the propulsion of wheelchairs, he also has an interest in the development of contoured seating systems for pressure management.

Martin Ferguson-Pell:

Recently returned to the UK from the USA. His

background has been in pressure management and measurement and he has been responsible for the development of several programmes for the provision of services in New York state.

Doug Hobson:

From the University of Pittsburgh, USA, he has been responsible for many innovations in the field on Rehabilitation Engineering. He has established services for the provision of seating in Memphis and has now moved to Pittsburgh where his prime interests lie in the field of transportation. He is a past President of RESNA and is the stimulus for many developments and service programmes throughout the USA and Canada

Maria Hopman:

A Research Physician from the Netherlands who has particular interest in spinal cord injury patients, measuring physiological changes during propulsion and is also interested in the associated conditions for pressure management.

Lee Kirby:

A Rehabilitation Physician from Canada who has special interest in stability considerations for wheelchairs and who is actively involved in developing ISO Standards for the Determination of Stability and in raising the awareness of the importance of stability in the provision of a wheelchair.

Simon Levine:

From the USA, he has an engineering background with special interest in the development of advanced switching systems for controlling powered wheelchairs. He is also involved in developing intelligent wheelchairs which can minimise the

demands on the requirements for control by the user.

Jeannie Minkell:

From the USA, she is a free lance Therapist who has been actively involved in the area of wheelchair and seating for many years and has developed considerable experience across the whole field. She teaches many training packages for prescribers with a pragmatic view.

Jessica Pedersen:

An Occupational Therapist from the USA she has extensive experience of the provision of seating and wheelchairs to disabled people ranging from children to the elderly.

Bary Seeger:

From Australia, he has done much work in developing seating systems and runs a centre which is active in the testing of wheelchairs in addition to its clinical role. He also has a particular interest in transportation.

Elaine Trefler:

An Occupational Therapist from the USA she has an extensive background in seating and wheelchairs. Recently her particular interests have centred around the problem of providing training and accreditation for staff working in this area.

Luc van der Woude:

A kinesiologist from the Netherlands he specialises in the biomechanics of manual propulsion of wheelchairs and has produced many papers on the subject.

Dr. Geoff Bardsley
Conference co-ordinator

Dundee

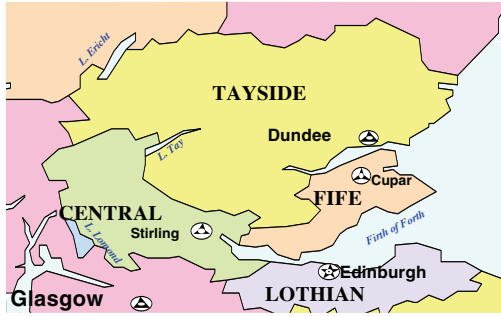
Dundee is situated on the east coast of Scotland, one firth up from Edinburgh, on the North bank of the Firth of Tay. To the North is Angus, stretching from the coastline, North of the Tay to the Grampian mountains, with the Cairngorms a little further up. The coastline between Montrose and Arbroath is particularly dramatic with gentler dunes and sands as you drop down towards Dundee. There are good road, rail and air links to Dundee whichever part of the UK you're travelling from. Tourist information is in City Square

where you can pick up a free copy of 'What's on' magazine for local events and exhibitions. For travellers arriving by car, the Tay Road Bridge, opened in 1966 offers a great panorama of the city.

History

A settlement from pre-Roman times early inhabitants resisted invasions from Romans, Vikings and the English. William Wallace was educated in Dundee and Robert the Bruce was proclaimed King of the Scots

Dundee and its environs



there. During the Scottish wars of Independence it became a battle ground because of its strategic position. The town was destroyed by the Royalists and Cromwell's army following the Reformation of John Knox in the 16th century and then again by Stuart Viscount Dundee in the Battle of Killiecrankie.

During the Industrial revolution, Dundee with its train and harbour links, became a major manufacturing centre for shipbuilding, whaling and jute. Marmalade was invented in Dundee in the 19th century and Dundee was also known for Journalism, the Beano and Dandy comics being two of the most famous productions.

Things to see

South of the centre, is Discovery Point where the Royal Research Ship Discovery, used by Captain Scott in various Antarctic explorations between 1901 and 1929, is moored. Not far away in Victoria Dock is the frigate Unicorn, 1824, the oldest British Warship still afloat. Seagate Gallery exhibits travelling exhibitions of all kinds of contemporary art, as well as work from local artists. Albert Square, North of the City Square is where you will find the Gilbert Scott designed McManus Art Galleries and Museum. East of the city you'll find Broughty Castle and Museum featured on the front cover. Built in the 15th century to protect the estuary it houses local history exhibits.

Royal Research Ship Discovery



If you're looking for a vantage point of the city then both Dundee Law a mile north of town and Balay Hill, where Mills Observatory is situated, offer great views of the city.

There are a few sights within easy reach of Dundee, including Glamis Castle which was the setting of Shakespeares Macbeth and Meigle featuring one of Scotland's foremost collections of Pictish stones.

Nightlife

There are three night-clubs in South Ward Rd. Fat Sams is the most studenty, De Sithlis has older, less raucous clientele, and Mardi Gras is the newest, offering mainstream dance and chart. For Theatre, there's the Dundee Repertory Theatre on Tay Square,

McManus Art Gallery and Museum



excellent for indigenously produced contemporary theatre. Dundee Arts Centre is good for community based theatre and dance music. Caird Hall is recommended for classical arts.

Sports and leisure

If you're keen on golf there's a number of courses including Caird park, Camperdown, and Downfield. If you're looking for watersports then there's the University with its own watersports centre on the estuary at Newport on Tay or you could try the Royal Tay Yacht Club is based at West Ferry. There's good white water for canoeing to be had in the many fast flowing rivers, and if you've got a car or don't mind hitching, the mountains a short drive away offer no end of outdoor activities from horse riding to hill walking and rock climbing.

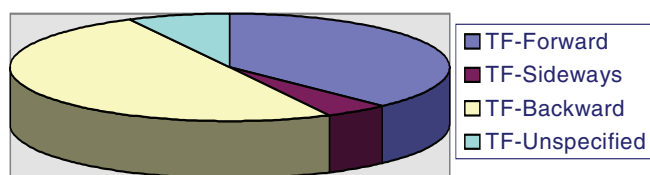
Phil Swann

Adverse Incidents and the Consequences for Wheelchair Design and Selection

This article is based around an abstract of a paper found in the Journal of Rehabilitation Research and Development by Gaal et al, (1997). The paper covers a survey of 253 incidents occurring over a 5 year period, of which: 106 (42%) were attributed to tips & falls (TF) which covers both wheelchair and user stability, 84 (33%) were caused by component failure (CF) and the remainder, other incidents (OI), covering secondary incidents such as being hit by a motor vehicle.

Part of the research analyses the TF occurrence further. It is interesting to note that in identifying the modes of incident for the sample given; forward and backward TFs provide a higher incident rate (3:1) in manual wheelchairs, whereas sideward TFs provide a higher incident rate (6:1) in powered wheelchairs.

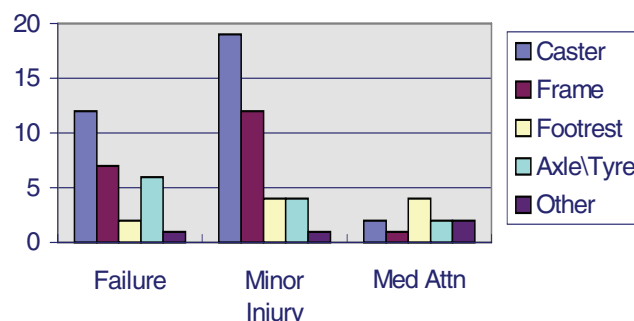
Tips & Falls Manual Wheelchairs



The paper's summary is somewhat paradoxical. It would seem that the main cause of wheelchair incidents stems from the stability of the wheelchair design with regard to centre of gravity (CG) and castor size. This suggests that the combined wheelchair and user CG must move forward to increase rearwards stability. This in turn increases the likelihood of tipping forward and reduces propelling efficiency as the main wheels move further out of reach and rolling resistance of the castors increases. To reduce rolling resistance an increase in castor size is required which in turn displaces the position of the footplates - this could then effect the CG of the chair as the seating position is adjusted to accommodate the user!

The study also suggests that the castor is the most predominate component failure (although footrest failure provided the highest number of user injuries that required medical attention). The recommendation being to fit pneumatic tyres which should help to reduce castor failure as they act as a cushion reducing the shock load when hitting obstacles. With the introduction of different rubber compounds solid tyres

can now be made to perform like pneumatics, but without the risk of flat or badly inflated tyres.



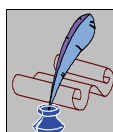
It would seem that the design of a wheelchair needs to accommodate a number of variants to best seat the user. If one takes this argument further one can develop reasoning to provide adjustable self propelled wheelchairs with dynamic anti tip wheels, i.e. sprung to allow the negotiation of kerbs etc. but set to prevent the over balance of the user in the wheelchair.

Where does this leave us? The need is for a truly modular wheelchair that will provide the adjustments required to satisfy the majority of wheelchair user needs. This, in part, has been tried by the manufactures via a centrally reported (NHSS) need from which a number of modular type wheelchairs have emanated from. In principle it is from this stock that future development should come. But alas, people are still purchasing standard chairs (fixed construction) even when the price difference is negligible.

Reference

Gaal R P, Rebholtz N, Hotchkiss R D, Pfaelzer P F., 'Wheelchair rider injuries: Causes and consequences for wheelchair design and selection.' Journal of Rehabilitation Research and Development Vol. 34, No. 1, January 1997.

David Calder
REM, King's Healthcare.



We're on the look out for Clinical Articles that would be of interest to members. This could be either work you've done, a paper you've heard presented, or a paper you've read that could be summarised. Please send any contributions to Phil Swann, marked 'Articles'.

Feedback Forum

Standards. BSI ISO 7176-15. Technical jargon or useful information?

On 15th April 1996, BSI - ISO: 7176 - 15, 1996 Wheelchairs - Part 15; 'Requirements for information disclosure, documentation and labelling' came into effect. It has to be said that most of the standards documents are full of technical information and jargon and seem to have little relevance to the users of wheelchairs. This is indeed true of many of the BSI - ISO documents, however Part 15 has particular relevance to users and prescribers.

This is the document that provides standards and recommendations for the information that manufacturers should provide to their customers regarding their wheelchairs. The purpose of this standard is that information in brochures and handbooks should be provided in a 'standardised' manner enabling direct comparison between products.

Copies of this 10 page document will be held by organisations represented on the BSI Technical Committee, CH/40 Sanitary chairs and Wheelchairs. This includes the College of Occupational Therapists; Chartered Society of Physiotherapists; Rehabilitation Engineers Managers' Group and Wheelchair Managers' Forum. Anyone wishing to purchase their own copy should contact the sales department at BSI for details. The cost for each standard is generally in the region of £35.

The Technical Committee has a responsibility to ensure that UK interests are considered and represented at international and European level. Whilst delegates from all countries share common goals, developing an international standard can be a very lengthy and expensive process, as delegates have both local and national interests to consider.

Standards are generally voluntary and not necessarily legally binding. However, if not followed, should a complaint or mishap be brought to court, the manufacturer or supplier of any goods may need to justify why they have not followed the relevant standard.

Standards can be restrictive and affect customer choice. For Clinicians there is a dilemma, for whilst

wishing to ensure that equipment supplied to their 'customers' is of a high quality, there are cases when standards do restrict choice and an item that has not met the required standard is more appropriate to the clinical or specific need of an individual. Common sense must prevail, though unfortunately in a large organisation such as the NHS, the purchaser (supplies) can often dictate what is provided.

In order to reduce the likelihood of standards being restrictive, it is important that the different national committees such as BSI CH/40, contain representatives from relevant groups of users and prescribers and fortunately these numbers have increased in recent years. With the differing needs and views of the various national representatives, completing a standard can take many years and is therefore a costly business. ISO 7176 which relates to wheelchairs has 22 parts many of which are still awaiting agreement and completion after several years by which time they can easily have become of less relevance than when started. Anyone requiring further details on the workings of Technical Committee CH/40 and the areas covered by the 22 parts should contact the representative of their particular group or:

Patsy Aldersea. 0181 770 0693.
*Occupational Therapist, Wheelchair service Manager
Merton and Sutton*

If you've been to any meeting/ conferences of interest and would like to share information with other PMG members; write to Phil Swann, marked 'Feedback Forum'.



ISO 6440:1985	Wheelchairs - Nomenclature, terms and definitions.
ISO 7176-1:1986	Wheelchairs - Part 1: Determination of static stability.
ISO 7176-2:1990	Wheelchairs - Part 2: Determination of static stability of electric wheelchairs.
ISO 7176-3:1988	Wheelchairs - Part 3: Determination of efficiency of brakes.
ISO 7176-4: ¹	Wheelchairs - Part 4: Determination of energy consumption of electric wheelchairs and scooters-Theoretical range.
ISO 7176-5: 1986	Wheelchairs - Part 5: Determination of overall dimensions, mass and turning space.
ISO 7176-6:1988	Wheelchairs - Part 6: Determination of maximum speed, acceleration and retardation of electric wheelchairs.
ISO 7176-7: ²	Wheelchairs - Part 7: Method of measurement of seating and wheel dimensions.
ISO 7176-8: ²	Wheelchairs - Part 8: Requirements and test methods for static, impact and fatigue strengths.
ISO 7176-9:1988	Wheelchairs - Part 9: Climatic tests for electric wheelchairs.
ISO 7176-10:1988	Wheelchairs - Part 10: Determination of obstacle climbing ability of electric wheelchairs.
ISO 7176-11:1992	Wheelchairs - Part 11: Test Dummies.
ISO 7176-13:1989	Wheelchairs - Part 13: Determination of coefficient of friction of test surfaces.
ISO 7176-14: ²	Wheelchairs - Part 14: Power and control systems for electric wheelchairs. Requirements and test methods.
ISO 7176-15:1996	Wheelchairs - Part 15: Requirements for information disclosure, documentation and labelling.
ISO 7176-16: ²	Wheelchairs - Part 16: Determination of flammability.
ISO 7176-17: ²	Wheelchairs - Part 17: Serial interface for electric wheelchair controllers.
ISO 7176-18: ²	Wheelchairs - Part 18: Stair traversing devices.
ISO 7176-19: ²	Wheelchairs - Part 19: Wheeled mobility devices for use in motor vehicles.
ISO 7176-20: ²	Wheelchairs - Part 20: Determination of performance of stand-up type wheelchairs and motorised scooters.
ISO 7176-21: ²	Wheelchairs - Part 21: Electromagnetic compatibility of powered wheelchairs and motorised scooters.
ISO 7176-22: ²	Wheelchairs - Part 22: Set up procedures.
ISO 10542-1: ²	Wheelchairs - Tie down and occupant restraint systems for motor vehicles; Pt1: General requirements.
ISO 10542-2: ²	Wheelchairs - Tie down and occupant restraint systems for motor vehicles; Pt2: Particular requirements for belt systems.

¹ To be published (Revision of ISO 7176-4: 1988)

² To be published.

RESMAG

What? The Rehabilitation Engineering Service Managers' Group for England

Why? Best answered with the Terms of Reference as stated in our constitution.

- (a) To provide a representative body for rehabilitation engineering service managers for liaison.
- (b) To provide advice on rehabilitation engineering services.
- (c) To initiate and continue to promote and support quality management systems within the field of rehabilitation engineering.
- (d) To co-ordinate and exchange information between rehabilitation engineering services at regional and national level.
- (e) To assist in the implementation and review of Continuous Professional Development and the relevant training systems for Rehabilitation Engineers and Rehabilitation Engineering Technologists.
- (f) To act as co-ordinating body for collection and dissemination of information from, for example:-

National Wheelchair Purchasing Centre (NWPC)
National Wheelchair & Special Seating Consultative Group (NWSSCG)
National Wheelchair Managers Forum
Centre of Rehabilitation Engineering (CoRE)
Posture and Mobility Group (PMG)
British Standards Institute (BSI)
Institute of Physics & Engineering in Medicine (IPEM)
Prosthetics Commodities Advisory Group (PCAG)

Who? Up to two representatives from each region; Northern & Yorkshire, North West, Trent, West Midlands, Anglia & Oxford, South West, North Thames, South Thames. Members must be actively involved in the day to day management of Rehabilitation Engineering Services and act as a channel of information both to and from the group for REs within their own regional area. The title of the group does include 'for England' but we do now have associates from Scotland and Northern Ireland, and the associate for Wales should be elected very soon. We also have associates from the Medical Devices Agency and the Centre of Rehabilitation Engineering.

When? Bimonthly meetings, usually lasting between 5 and 6 hours; there's always so much to discuss.

Where? At DSCs the length and breadth of the land.

How? Fine! How are you?

Adverse Incident Reporting

Alan Lynch remarked to us at RESMAG at the end of 1996 that the reporting rate was significantly down and that it was a nationwide effect.

I have just been reviewing the reports made by my engineering team during 1996/97. Our total was 48 reports, against 85 in 1995/96. Nuff said? Well, no, actually. We need to think why this is so.

Are manufacturers actually producing a more durable and generally better product? Are all of us in the NHS so increasingly pressed delivering services, that we do not have time to report the 'less serious' problems that we see? Perhaps we are not spotting or hearing about them.

The first may be so. Hands up all those Yes, that's roughly what I thought. Sorry Messrs Manufacturers but my finding is that, generally, the products are not that much better. I promise to say more on this, particularly around the word durable in my next epistle.

The second could be true, but would be a serious failure in the exercise of our duty of care.

The third also constitutes a failure, partly by us. We have always known that much is simply not told to us, repairs or replacements being arranged quickly for the client's benefit. This seems a reasonable response, but does not benefit the service users in the long run. Production processes have enormous inertia and will not change unless acted upon by a significant force of defect reports. This is my restatement of Newton's 1st law applied to manufacturing. The situation is made more difficult in the cut-price world of wheelchair pricing contracts. You get the quality you demand.

René Parison
 Rehabilitation Engineering Services Manager
 Harold Wood DSC.

PMG News

Summary of PMG aims

The Posture and Mobility Group, PMG, (England and Wales) was formed in 1993 to provide a forum for professionals who are interested in and/or responsible for meeting the postural and mobility needs of people with disabilities. The PMG promotes best practice; provides a training forum; collates information; offers meaningful advice for the benefit of policy makers and purchasers of service.

Links have been established with the Scottish Seating and Wheelchair Group and collaborative scientific

meetings with this and other groups are anticipated.

The PMG hold an annual Scientific Meeting and publish two Newsletters a year, free to members. Members of the PMG are entitled to discounts in the registration fee for the Annual Scientific Meeting and other meetings organised in collaboration with the PMG.

A Copy the membership form is included, pass it round to colleagues and encourage them to join.

Dundee '97 Bursaries

CONGRATULATIONS to Jacqui Donaldson (Macclesfield), Liz White (Canterbury) and Lesley Silcox (Hayle, Cornwall) who all managed to convince the Committee that a trip to Dundee would benefit them and their services. You will be seeing their names in print again after the conference as they will be reporting on some of the sessions.

Thanks to all for applying and commiserations to the applicants who weren't successful. We hope you make it to Dundee anyway.

PMG Annual Conference 1998

At the time of writing the preliminary venue for the PMG conference 98 is the York Viking Moat House. This will be a two day conference spanning the 27th and 28th of April. Members will be notified of any changes to this venue.



Competition Time: As you may have noticed the Newsletter has undergone some changes. In view of this we're toying with the idea of changing the name and/or creating a logo. Any member who can provide a suitably inspired title and/or logo will win a super prize. Send either your ideas or objections to change and we'll let you in on the result in January 98's edition.

PMG Annual General Meeting 12.30, Wednesday 10 September 1997.

Motions for the meeting should be sent to the Secretary, Alan Turner-Smith, King's Healthcare Rehabilitation Centre, Bowley Close, LONDON SE19 3PY, to arrive on or before Tuesday 2 September. There are no committee members due to stand down this year so there will not be an election. DO bring along your membership cards to Dundee. They will be required to vote on motions and *to secure your special PMG delegate concessions and freebies.*

Provision of Wheelchairs, Posture & Seating Services. Guidance for Purchasers and Providers

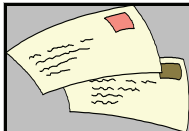
The purpose of this document is to provide commissioners and providers of mobility, posture and seating services, with a reference resource which reflects the current views and opinions of those concerned with service provision and to promote best practice based on established clinical reasoning, audit and research findings. Wheelchair (mobility and posture assistance) services must be responsive to change in population needs, resource allocation and national policies and it is intended that the document

will be regularly updated to reflect such changes.

Reference:

Abstract: Provision of Wheelchairs, Posture & Seating Services. Guidance for Purchasers and Providers

To be published in time for Dundee and distributed to PMG members free, including updates.



Post Bag



Dear Ed,

Many services around the country share similar problems. In some cases an answer has been found and it would be useful to pass on success stories or recommendations to save others re-inventing the wheel. Budgets appear to be an area of common concern and whilst it is impossible to compare notes on exact levels of funding, some services have found ways to keep within budget and yet still provide an acceptable service by looking closely at their policies and guide-lines for provision.

Letters and queries have been received by members of the committee on three topics which seem to concern several services. These are:

- ⇒ Nursing Homes
- ⇒ Occasional users
- ⇒ Children and Young people with behavioural problems.

In each case the query is; 'Do you know anyone who has a policy for.....?' or alternatively 'Do you know anyone who does/does not provide wheelchairs for.....?'

No one has a bottomless pit of cash and clearly all services have to set policies which will inevitably include priorities depending on local need and other support services. However these three areas seem to fall into a grey area resulting in the need to have clear guide-lines for wheelchair services to follow.

Have you solved the problem? Are you able to share your recommendations or offer advice to those still struggling with these issues?

Patsy Aldersea
*Occupational Therapist, Wheelchair service Manager
Merton and Sutton*

Dear Ed,

I shall be most interested to receive feedback from other wheelchair services about a particular client group, for whom we have recently had a number of requests for chairs, and seating systems. I refer to the provision of chairs for hyper-active children, and those with particular behavioural problems. The disability in these cases is generally not that the child lacks mobility

but that he or she is in fact too mobile and the Chair is being requested as a means for a parent, usually the mother, controlling that child. I personally have every sympathy with a parent who is unable to take a child out for fear of them running amok in a supermarket, or dashing across a busy street. There are however, a number of issues raised:

- ⇒ To the best of my knowledge, we have never been funded for chairs for this purpose.
- ⇒ There must be legal implications of children being restrained, seemingly against their wishes.
- ⇒ There is also risk of the child damaging his or herself
- ⇒ If we can identify resources on the basis of a definite need, what sort of wheelchairs and restraining devices are most appropriate?

I look forward very much to hearing other peoples experiences?

Dr D J Thornberry MA. MB. B(Chir). F.R.C.S.
Consultant in Rehabilitation Medicine

Dear Mr Turner-Smith

I am writing to you in your role as Secretary of the Posture and Mobility Group. Within our Trust there is currently a debate about whether it is acceptable to leave people sat on unpadded hoist slings in moulded seats. There are obvious concerns about tissue viability and the risk of pressure sores from creases in the sling, but there is also a point of view that says that this risk is minimal for most people. This has to be balanced against the risk of back injury to staff whilst putting people into moulded seats and positioning them correctly.

It is probably true to say that there is no dispute over the 'ideal' situation from the point of view of the client in the mould - no sling left in place, but there are differences of opinion as to where the line is drawn between the risk to the client and the risk to staff. I have been unable to find any published material directly relevant to this problem, and would be grateful if you could let me know of any unpublished research or other work that may be relevant.

Simon Plummer MCSP SRP
Clinical Manager, Therapy Services

Questions and Answers

This slot as titled is to be dedicated to questions, and answers to those questions. Not many answers for this issue but hereís some questions which if you've got a view on you might like to place in writing.

- ⇒ Small Centres are more user friendly than big ones?
- ⇒ Are you making the voucher scheme too complicated?
- ⇒ What is an acceptable amount of time to wait for a wheelchair/seating system post assessment?
- ⇒ Given a delay in receiving equipment, is it better to wait pre or post assessment?
- ⇒ Should we be prepared to tell those who want a 'Special Seating Solution' off the shelf that in some instances we can't help?

- ⇒ Since no matter what the trust policy on lifting and handling is, it is inevitable that at some point you will have to assist in a lift, be it an emergency with a client or hoiking a wheelchair in your car, therefore my question is: is management being negligent in not ensuring that employees carry out appropriate exercise, during work hours, to minimise the risk of injury, which is surely greater to an untrained body.

The Newsletter can act as a contact point and we are willing to publish both pleas for help and offers of support in Post Bag. So if you've got a problem or want to respond to any points raised, please write to: Post Bag c/o Phil Swann.



Notice Board

Future Meetings:

Date	Venue	Title	Contact Tel no.
September 1997			
2 - 5	Dundee	IPEM Annual Scientific Conference	07904 610821
8 - 12	Dundee	International conference on wheelchairs & Seating.	+44(0) 141 553 1930
14 - 19	Nice, France	Nice 97 - World Congress on Medical Physics and Bioengineering	+33 144 49 60 60
29 - 2	Thessaloniki, Greece	AAATE 4th European Conference for the Advancement of Assistive Technology	+30 312 779 04
November 1997			
18	Birmingham	RARE	0171 346 3736
? 1998			
?	Roehampton	Klunk Klick	
April 1998			
27 - 28	?York	PMG annual conference	PMG

Please write in to spread news to members of courses, conferences or other events that are of interest.

Editorial Team Info.

Editor:

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This is a picture of me out walking in Norway and yes besides working in Special Seating I enjoy stomping in the hills. After finishing a degree in Mechanical Engineering I embarked on a two year Medical Physics training scheme based at Hull. Having completed the scheme and gained an M.Med.Sci. and a Diploma from the IPeM (Institute of Physics and Engineering in Medicine) I started work with Kings Healthcare as a locum RE. Luckily for me an opening as Clinical Engineer in Special Seating arose and that's what I'm doing now, serving the NW Thames region.

Assistant Editor:

Julia Cunningham,
Scarborough & NE Yorks,
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Tel: 01723 353 177



I work for Scarborough Wheelchair Centre as physiotherapist/Manager/Budget Holder. Scarborough is a relatively small centre covering a large rural population. My background is in paediatrics, I have worked at Chailey Heritage and for Scope. I have just completed an enjoyable first year on the Posture and Mobility committee. I am also the Yorkshire representative on the NW & SSG committee so, what with three teenagers at home, spare time is a luxury! but I do enjoy Morris Dancing as a complete contrast.

Assistant Editor:

Patsy Aldersea
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Orchard Hill,
Carshalton, Surrey, SM5 4NR.
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An escape from work is provided by the family, including William the Battersea Border. With a family of musicians, there is plenty of opportunity for concert going - mainly jazz or classical. My favourite activity is fell walking, preferably in the Lakes and finishing at a good pub. I also have a love of horse racing with or without picking a winner.

Assistant Editor:

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REM with King's Healthcare responsible for service development. I flew in from the aerospace industry six years ago to work in the field of rehabilitation engineering. I Enjoy the role of sleeves up \ team approach and have been known to become rather passionate when speaking about service user needs and the rehabilitation organisation as a whole.

Cover Page: Broughty Ferry Castle

The next issue of the Newsletter will be in January 1998. The deadline for the January issue is the 6th of December. A supplement will be produced in October on Dundee '97, reporting on the plenary sessions. Reports from the plenary sessions should reach the Editorial team no later than the 29th of September.

The aim of the Newsletter 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 or 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.