

NCPO Invited to Teach Ischial Containment in Japan

The National Centre for Prosthetics and Orthotics was invited to deliver an ischial containment unit to undergraduate prosthetics and orthotics students at Kobe College of Medical Welfare in Japan. Dr. Michael Dillon created and delivered a thirteen day curriculum involving lectures, tutorials, demonstrations and practical classes in which students developed a theoretical understanding of ischial containment socket design as well as the clinical skills necessary to begin working in this area after graduation.

In addition to teaching basic clinical skills such as assessment, casting and fitting, the program was aimed at challenging students to think critically about what prosthetists do; a skill well embedded in Australian prosthetics and orthotics education, but quite a novel



NCPO lecturer Dr. Michael Dillon advises a Kobe student.

ies. Students enjoyed the different teaching approaches, particularly the tutorials, which are not commonly utilised in Japanese education.

The National Centre for Prosthetic and Orthotics sincerely thank Kobe College of Medical Welfare for the invitation to teach in Japan as well as the staff and volunteers who assisted in making the program such a success.

If you would like to find out more about the ischial containment course, please contact Michael Dillon on 03 9479 5889 or via email: michael.dillon@latrobe.edu.au.



A Kobe student comes to grips with the difficulties of IC casting.

educational experience for Japanese undergraduates. As an illustrative example, lectures critiqued the work by people like Ivan Long and John Sabolich which became the catalyst for the ischial containment socket design. Some tutorial sessions focused on differences in coronal plane alignment principles which have become synonymous with either the quadrilateral and ischial containment socket design, to determine whether these differing approaches affect amputee gait.

The program was well received by both staff and students of Kobe College and also received acclaim from members of the profession and professional bod-



Dr. Dillon and the group of 3rd year students and staff of the Kobe College of medical Welfare P & O course.

Advancing Clinical Education (ACE)

Course for Clinical Supervisors

The Quality Supervision Course has been updated and will be presented in two formats during 2006.

Option 1 involves three consecutive Fridays (June 30, July 7 & 14).

Option 2 is presented in a single 3-day block (Wed 19 July - Fri 21 July). The course has a new name 'Advancing Clinical Education', and a new venue.

Further information and registration is now available via this website:

<http://www.advancingclinicaleducation.com.au/>

As always, there will be fierce competition for places in this multidisciplinary course, so try to register early. Margaret Hodge represents the NCPO on the ACE curriculum team, and can be contacted via email: M.Hodge@latrobe.edu.au

NCPO Writing Skills Matrix Applauded

Late last year, the NCPO was invited to present the innovative NCPO Writing Skills Matrix at the inaugural Staff Development Seminar for the Faculty of Health Sciences (FHS). Ms Mara Pavlidis, FHS Language & Academic Skills Advisor, extended the invitation because she considered the NCPO to be leading the Faculty in the teaching of writing skills, and identified the matrix as unique in health science education to date. It was an honour for the NCPO to receive the invitation. Staff had put much time and effort into developing expertise in writing tuition, and appreciated their work being recognised in this manner.

Ms Margaret Hodge, NCPO Lecturer and Curriculum Coordinator, had acted as team leader during development of the matrix, and made the presentation on behalf of her colleagues. She explained the rationale for the matrix creation, summarised the development process implemented over three years, presented the latest matrix with examples, and discussed how the matrix had influenced writing tuition within the B.P&O curriculum. Seminar participants then engaged in discussion of the matrix and of health science student writing skills education in a broader sense.

The NCPO Writing Skills Matrix encourages skill development on a number of levels through the 3.5 year undergraduate degree and the 4 year honours degree. Skills are defined and are introduced systematically, beginning with foundation tasks and working up to advanced or difficult skills. Skill standard increases throughout the four years. Matrix forms provide students with clear guidelines about expectations in written work, and offer detailed feedback about achievements. Tutorials focussing on key writing skills are included in all years.

With these developments, NCPO staff members are confident that P&O graduates attain a writing ability appropriate for an undergraduate degree, which will al-

low them to contribute to the professional literature or workplace reports once they join the profession.

Academic staff from schools and departments within the FHS, and from the University Language Centre, attended the seminar. Participants commended the NCPO on the writing matrix and rated the seminar very highly. They valued learning about the model underpinning the development of writing ability, and the clear articulation of writing skills for each year level provided by the matrix. "It was lovely for the matrix to be so well received, particularly by the professional linguists in the audience," Ms. Hodge said.

Since the seminar, academics from various schools and departments have sought access to the writing matrix for use in their programs, and one has worked to create a similar system to address physiology practical exercises. Further information about the NCPO Writing Skills Matrix can be gained from Margaret Hodge, email: M.Hodge@latrobe.edu.au or phone: 03 9479 5778.

This snapshot of one page of the third year matrix gives some idea of its depth and complexity.



A Flying Visit To Japan



Some of the delegates at the Transtibial Socket Design and Problem Solving Seminar in Yokohama.

Les Barnes and Mitsubiko Uchida are in the centre. (Les on the right)

The Japan Orthotic & Prosthetic Association (JOPA) invited NCPO lecturer Les Barnes to provide a seminar on Transtibial Socket Designs and Problem Solving Methods in February 2006. During the 6 day trip to Japan, he visited 2 P&O Companies, did some sightseeing, gave a lecture to P&O students at Kobe College and presented the seminar (lecture & demonstration) to Japanese P&O professionals and students.

Originally planned for 60 delegates, 150 students and practicing P&O professionals turned up to attend the five hour lecture/demonstration session. To meet such a huge demand, seminar organisers set up 4 video cameras and screens so that all the attendees could view the proceedings. With the room having a seating capacity of 120, there were many delegates who had to stand throughout the presentations.

The seminar covered the theory of transtibial socket designs, demonstrations of 3 different transtibial hand casts on a transtibial amputee and a transtibial socket problem solving session.

A JOPA dinner after the seminar was attended by leading Japanese P&O professionals including Heihachi Inagaki (JOPA President) and Dr Seishi Sawamura (past president of ISPO international).

A highlight of the trip included visiting two Japanese P&O Companies. The Kawamura Rehabilitation Company is based in Osaka and employs 250 P&Os. It provides a massive range of custom and off-the-shelf



Inside the enormous Kawamura Rehabilitation Company based in Osaka.

rehab equipment. It has many regional offices throughout Japan. The generous Kawamura Company welcome included hoisting the Australian flag outside, displaying a notice of the “Honoured Les Barnes Visit” in the foyer, a three hour comprehensive guided tour by owner Kei Kawamura, and lunch in the staff canteen. The huge 3 story head office covered about one acre.

A smaller company in Kyoto called Ohi Manufacturing employed about 10 P&O staff and this facility was smaller and more crowded. After lunch in a local restaurant, Les assisted treating a transtibial amputee who was having suspension problems.

Les and the NCPO would like to thank the JOPA organisers and especially the wonderful hosting of Mr. Mitsuhiko Uchida. Les found the trip “to be very interesting and an enlightening experience.”



NCPO 2006 Staff and Student Update

Despite a reduction in students applying to undertake tertiary education in 2006, the NCPO course easily filled its 2006 quota. A total of 31 new students have been enrolled into the course this year. These include international students from the USA, Japan, Hong Kong and Korea. We welcome these new students to the NCPO and hope that they will have a rewarding experience with us.

We are also pleased to welcome sessional staff members Mr. Mark Graf and Mr. Greg Halford to the NCPO 2006 teaching team. Mark has been contracted from

Royal Melbourne Hospital to assist with the delivery of Transfemoral Prosthetics theory and practice and Greg will assist with the delivery of the Lower Limb Orthotics curriculum. We look forward to the added contribution of these staff to our existing teaching expertise.

The NCPO advertises staffing vacancies as they arise and is always interested to register prospective staff members who wish to be informed of employment opportunities. Interested parties should contact NCPO Head Mr. Rod Cooper at rod.cooper@latrobe.edu.au and provide their curriculum vitae.



Greg Halford.



Mark Graf.

NCPO Clinic Case Study - The “Prosthesis”

Mr X was referred to the NCPO Clinic by his physiotherapist, for assessment for prosthetic or orthotic management. Mr X presented with crush injuries of his hands as the result of a workplace accident in 2003. His thumb and index finger were both amputated on the right side with the remaining three fingers combined and both hands demonstrated significant evidence of skin graft surgery.

Assessment of his upper limbs demonstrated good muscle strength and ROM at the elbow. On the right side muscle strength and ROM at the wrist was reduced with neutral just being acquired, the left side was within

normal limits. Mr X has significantly reduced movement at his interphalangeal joints and the left metacarpophalangeal joints are unable to reach full extension. Grip strength was significantly higher in his left hand in comparison to the right. Sensation touch testing proved negative on the dorsal aspect of the hand/wrist, within the skin graft region, with all other areas sensitive to touch.

Mr X reported that he is able to use his right hand to push, pull and hold large items but is unable to grasp small items and perform activities of daily living such as buttoning his shirt. He reports that he is a keen fisher-





Figure 1: The first version of the 'prosthesis' opposition device.



Figure 2: The second version, with a small plate added to the distal end, and a more 'sticky' lining of the aluminium bar.

man, likes to tend to his garden and working around the house and enjoyed placing bocce (a form of lawn bowls) prior to his accident. Mr X states that he is not very keen in regards to amputation of his right hand and is not fond of the idea of prosthetic management.

Following assessment of Mr X's upper limbs and discussing the prosthetic and orthotic options with him, it was determined that Mr X's right wrist function can be further enhanced with a "prosthesis" opposition device to enable him to grasp finer objects and enable him to be able to perform tasks with greater ease.

A cast was taken of his right forearm and a polypropylene shell was moulded. A length of aluminium half oval bar was bent to shape and attached to the shell with rivets. (See Fig. 1)

Upon review, Mr X demonstrated that when wearing the device he was able to now read a book, open and close the lid of a jar and hold a bottle of water, among other things.

Some minor modifications were made to increase usability. These included adding a small plate to the

distal end to provide a larger surface at the end of the device, and gluing some silicon to the aluminium to provide more grip. (See Fig 2)

The prosthesis opposition device has allowed Mr X to perform activities of daily living which he is normally unable to do without assistance.

For more information on this article and NCPO Clinical Services please contact the NCPO Clinic Manager, Angela Scardamaglia on 03 9479 5037

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