The Campbell D Mode ventilator provides an alternative to the Penlon 200 for the average adult patient. However it does not achieve the desired maximal inspiratory flow rate of 80 l/min at depth (2.8 bar) where its maximum flow is only 35 l/min. At 2.8 bar tidal volumes above 600 ml cannot be achieved. It would be unable to provide clinically acceptable tidal volumes in some clinical circumstances (e.g. the morbidly obese) and further studies are needed to identify its clinical limits.

The PEEP function has not been evaluated. Controlled ventilation in the hyperbaric chamber presents a variety of challenges and risks that require further evaluation.

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This paper formed part of the thesis submitted for the Diploma of Diving and Hyperbaric Medicine awarded to Dr M W Skinner in1997. When the Diploma was awarded he was Provisional Fellow in the Department of Anaesthesia and the Hyperbaric Medicine Unit at the Fremantle Hospital, Fremantle, Western Australia 6160.

THE WORLD AS IT IS

1997 ANNUAL MEETING OF THE AUSTRALIAN HYPERBARIC TECHNICIANS AND NURSES ASSOCIATION

Eric P Kindwall

Key Words
Hyperbaric facilities, meeting.

The Coogee Beach Hotel was the venue for the 5th Annual Scientific Meeting of the Australian Hyperbaric Technicians and Nurses Association (HTNA) 28-30 August 1997. Coogee Beach is a pleasant seaside suburb of Sydney, which in August was welcoming the beginning of spring "down under". There were well over 100 participants from the nine hyperbaric facilities in Australia, all hospital-based units with multiplace chambers. More than 30 papers were submitted to the meeting; slightly over half of them dealt with clinical hyperbaric medicine and the remainder with diving-related subjects. Laura Josefson, RN, President of the BNA, and I were guests of the HTNA and were given ample time to speak on the program.

The clinical hyperbaric subjects were broad and varied. They included impaired neutrophil adhesion in patients with diabetes, the problem of claustrophobia in the chamber, injury mechanisms in carbon monoxide poisoning, psychiatric profiles of patients with carbon monoxide poisoning, a survey of middle ear barotrauma in unconscious patients, an update on the results of hyperbaric incident monitoring (the HIMS Study) and the use of tympanostomy tubes.

The divers dealt with the treatment of decompression sickness, DCS at very shallow depths, technical diving subjects and the practicality and utility of square hyperbaric chambers.

We were met at the airport by Dr Ian Unsworth, literally the founder of HBO therapy in Australia, who turned us over to the capable hands of John Kershler and Barrie Gibbons of the Prince of Wales Hospital HBO unit, who had made all our travel arrangements.

The highlight of the trip for me and my family was a grand tour of the hyperbaric facilities in Australia, starting in Sydney with the Prince of Wales Hospital and HMAS PENGUIN, the Royal Australian Navy Diving Training Facility. Our travels then took us to the Royal Hobart Hospital in Hobart, Tasmania; the Alfred Hospital in

Melbourne; the Royal Adelaide Hospital in Adelaide; the Fremantle Hospital in Western Australia; to the Townsville General Hospital, which handles diving casualties from the Great Barrier Reef; and finally back to Sydney for the meeting.

One of the most impressive looking chambers was the multiplace facility at the Royal Hobart Hospital founded by Dr Peter McCartney, who remains as consultant. Co-directors Dr David Smart and Dr Margaret Walker are currently running the chamber. Their unit featured 60 cm (23.6 inch) circular view ports in a chamber capable of 6 ATA. These were literally like dramatic picture windows. The Alfred Hospital in Melbourne at the present time has a circular-doored multiplace chamber but has just received approval for a 3-lock rectangular chamber capable of 6 ATA, which will be constructed beginning in 1998, according to Dr Ian Miller, the director.

In Melbourne, Dr Miller treated us to an Australian rules football game, best described as a form of "guerilla warfare" with goal posts. The Adelaide Hospital already had a rectangular chamber with unbelievable space for positioning patients and using critical care equipment. Dr John Williamson and his charming wife were our genial hosts.

During our visit to the Fremantle chamber run by Dr Harry Oxer, we were privileged to visit the ultra-modern Royal Australian Navy Submarine Escape Training Tower located there. The Fremantle chamber facility and the Royal Australian Navy work closely together with regard not only to training but also to management of diving casualties. While there, we had a delightful dinner overlooking Fremantle Harbour with Harry and Sharon Keetley of the Fremantle Hospital HBO Unit. Sharon is president of the HTNA.

The Townsville chamber is very active in the treatment of diving casualties, as well as having a vigorous clinical hyperbaric program. Dr David Griffith is the energetic director of the unit there. If a new hospital facility is built, which is now being actively discussed, they are hoping to get an even more user-friendly clinical chamber. While in Townsville, we had the opportunity to spend a day at the Great Barrier Reef, where we snorkelled amid giant clams and colours that I had never seen in the Caribbean.

The most impressive thing my family and I experienced in Australia was the wonderful hospitality and generosity of everyone when it came to their time and willingness to arrange our travel. We made many new friends and hope that we may reciprocate the warm welcome we received.

We found Australian medicine to be absolutely first-rate. In many ways, the Australians seem to be less bound by tradition and quicker to adopt new methods that work. Their no-nonsense approach to problem-solving is impressive. It appears that their protocols for the treatment of decompression sickness, for example, are somewhat more advanced than those used commonly in the United States, with all the chamber having helium-oxygen available on the manifold.

The Australians face many of the same problems we face here concerning money for chambers and equipment and insurance reimbursement, in many ways it sounded like old home week.

Uniform regulation associated with hyperbaric treatment is in the final planning stage, and a committee is about to establish nationwide minimal standards for training of physicians and chamber personnel.

In summary, it was an enlightening educational experience and a most enjoyable 18-day tour under the Southern Cross.

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