

Hyperbaric Technicians and Nurses Association



25th Annual Scientific Meeting on Diving and Hyperbaric Medicine “Back to the Beginning”



17th – 19th August 2017

Adelaide Convention Centre

Adelaide – South Australia



Welcome to Adelaide

On behalf of the Hyperbaric Technicians and Nurses Association, the 2017 Organising Committee welcomes you to the Convention Centre in Adelaide for the 25th Annual Scientific Meeting on Diving and Hyperbaric Medicine. We would like to extend a warm welcome to you all and hope that you enjoy your stay in Adelaide.

The HTNA believe an important part of this event is to continue to build upon the strong relationships which exist in our industry and develop new friendships that will enable the sharing of ideas and experiences.

The upcoming program and social events have been put together with the intention of offering you topics that involve scientific and general narratives from the field of Diving and Hyperbaric Medicine. To ensure a positive experience, please feel free to approach any of the organising committee should you require assistance with any relevant concerns.

It is important to gratefully acknowledge all our sponsors. These people and their organisations are intrinsic to the success of the Annual Scientific Meeting. Have a great conference.

HTNA 2017 Organising Committee

General Information

VENUE

The venue for the conference is situated on North Terrace and is surrounded by the Hospital & Medical research, Hotels & Adelaide Casino precinct and is close to the famous Adelaide Oval. Just a stroll down North Terrace you will find the Museum, Art Gallery and Library and a short walk to Rundle Mall, Hindley and Rundle streets will give you numerous choices of shopping, eating and entertainment venues.

REGISTRATION DESK

Open from **0830 to 0900** for registrations, and will assist with any concerns.

If you require assistance outside these times, please do not hesitate to approach one of the Host Unit staff

NAME TAGS

All delegates are required to wear their provided nametags at all times throughout the conference and social events.

The Host Unit staff and HTNA Executive can be identified by a Blue coloured Name Tag

AUDIO VISUAL

Speakers please provide electronic copies of their talk to the conference organising staff well in advance of their presentation.

TRADE DISPLAY

Trade and sponsor displays will be outside the Presentation room. Please avail yourself of these displays and support the organisations that support us.

POSTERS

Posters will be displayed in the City Rooms 1 & 2

CATERING

Breakfast: Delegates will need to arrange their own breakfast. As well as your accommodation venues many cafes and restaurants are open for breakfast, so please feel free to take a stroll and see what is around.

Lunch will be served in the City Rooms Foyer 1,2,3,4

Morning & Afternoon Teas will be served in the City Rooms Foyer 1,2,3,4

PARKING

For those that have vehicles there is parking available in the North Terrace and Riverbank car parks situated directly under the convention centre.

Conference Organising Committee

**Andrea Jones
Czes Mucha
Steve Goble
Troy Pudney
Lee Dunn
Laura Woodhouse
Di Abishara
Lorna Mirabelli**

**With assistance and patience from the staff of Royal Adelaide
Hospital Department of Hyperbaric Medicine**

Emergency Contact Details for Conference

Czes Mucha czes.mucha@sa.gov.au

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Royal Adelaide Hospital Hyperbaric Medicine Unit

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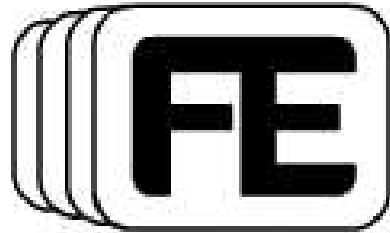
Conference and Corporate Sponsors



The Hyperbaric Technicians and Nurses Association and the Organising Committee of the 25th Annual Scientific Meeting on Diving and Hyperbaric Medicine would like to thank the following sponsors for their generous support.

Diamond Sponsors

Fink Engineering
www.fink.com.au



THE WESLEY CENTRE FOR
HYPERBARIC MEDICINE

Social Program

Date: Thursday 17TH August 2017

Cocktail Party

Sponsored by Fink Engineering Pty Ltd

Theme: Silver (25 years)

Wear or bring something Silver

Time: 1800 - 2100

Venue: Panorama Suite

Adelaide Convention Centre

Date: Friday 18TH August 2017

Conference Dinner

Time: 1900 – 2400

Venue: Adelaide Bowling Club

Bus pickup at western side of Convention Centre at 1830
Details to be announced at meeting

Guest Speakers

Dr David Doolette began scuba diving in 1979, was introduced to sinkholes and caves of Australia in 1984. During this time he alternated between studying for his B.Sc. (Hons.) and working as a dive instructor and he developed an interest in diving physiology. He planned and conducted among the first technical dives in Australia in 1993. Since being awarded his Ph.D. in 1995, he has conducted full time research into decompression physiology, first at the University of Adelaide, and since 2005 at the U.S. Navy Experimental Diving Unit. He has published widely in the scientific and military technical literature, and produces military decompression procedures. He has lectured widely on topics related to decompression theory and technical diving. He has been a member of the Undersea Hyperbaric Medical Society since 1987, received their 2003 Commercial Diving Award, and is a member of their Diving Committee. He has been a member of the South Pacific Underwater Medicine since 1990 where he was the Education Officer for five years. He is an avid underwater cave explorer and is a member of the Cave Diving Association of Australia, the Australian Speleological Federation Cave Diving Group, Global Underwater Explorers, the Mexico Cave Exploration Project, and the Woodville Karst Plain Project.

Dr Richard Harris: A former visiting consultant at the Royal Adelaide Hospital Hyperbaric Medicine Unit, Richard Harris now splits his time between private practice anaesthesia, and aeromedical retrieval with the SA Ambulance Service. For over 35 years, diving has been a large part of his life with a passion for underwater imaging, cave and wreck exploration. The last 15 years have seen him push his personal limits in the realm of technical diving, being rewarded by dives into virgin caves and previously unseen wrecks. Numerous expeditions nationally and internationally have allowed him to combine his interest in wilderness and expedition medicine with his passion for the underwater world.

This year he received the Australasian Technical Diver of the Year Award at the "OzTek" technical diving conference. A Fellow International of the Explorers Club of New York, Harry today will be presenting on how changing technology has assisted with advances in cave exploration.

Peter Wilson: Determined2® was started by **Immersion Therapy™** founder Peter Wilson and was the breeding ground for the Immersion Therapy service to take place. Forged by his own personal experiences overcoming injury, the company and service was built from the ground up with strong values and a commitment to do things differently. The overwhelming desire to live by the words innovation and inclusion is what ultimately shaped what you see today.

Sergeant David Bacchus: has been a police officer for 27 years, and is currently a Sergeant attached to South Australia Police, Special Task and Rescue (STAR) Group, Water Operations Unit.

Dave has been Police Diving for 22 years and is currently the units Training and Assessment Manager, in charge of Diving Operations and training within the units 15 Officers.

Dave holds a Commercial part 1, 2 & 3 Diver, Trainer and Supervisor accreditation, and is a Churchill Fellowship recipient in Search and Rescue.

Conference Programme

Thursday 17th August 2017

0830 - 0900	Conference Registrations	City Rooms Foyer 1,2,3,4
Program Commences City Rooms 1 & 2		
Session 1	Opening Session Session Chair: Czes Mucha Royal Adelaide Hospital	
0900 - 0920	Official Welcome: Hon. Kelly Vincent MLC	
0920- 1000	Special presentation "25 years"	
1000 - 1030	History of USN decompression procedures Special Guest Speaker: Dr David Doolette	
1030 - 1100	Morning Tea	City Rooms Foyer 1,2,3,4
Session 2	People with Disabilities / Tunnelling Session Chair: Steve Goble Royal Adelaide Hospital	
1100 - 1130	Determined2: Immersion Therapy™ <i>Mr Peter Wilson</i>	
1130 - 1200	People with Disabilities <i>Dr David Wilkinson</i>	
1200 - 1230	Hyperbaric Tunnelling Interventions <i>Mr Paul Smith</i>	
1230 - 1330	Lunch	City Rooms Foyer 1,2,3,4
Session 3	Inner ear DCS & PFO/ Drinking & diving Session Chair: Di Abishara Royal Adelaide Hospital	
1330 - 1400	<i>TBC</i>	
1400 - 1445	Inner Ear Decompression Sickness <i>Special Guest Speaker: Dr David Doolette</i>	
1445 - 1500	Drinking and Diving <i>Mr Tony Turner</i>	
1500 - 1530	Afternoon Tea	City Rooms Foyer 1,2,3,4
Session 4	Association Meetings	
1530 - 1645	<i>HTNA AGM</i>	City Room 1 & 2
	<i>ANZHMG AGM</i>	City Suite 4
1800 - 2100	Cocktail Party: Sponsored by Fink Engineering Pty Ltd 25 years: Theme Silver	Panorama Suite

Friday 18th August 2017

0830 – 0900	Conference Registrations	<i>City Rooms Foyer 1,2,3,4</i>
Program Commences City Rooms 1 & 2		
Session 5	Equipment /Cave Diving/Oxygen Seizures Session Chair: Di Abishara Royal Adelaide Hospital	
0900 - 0915	Free-Com Freespeak II: Testing and evaluating new communication equipment in a Hyperbaric environment <i>Mr Troy Pudney</i>	
0915 - 1005	Cave Marathons <i>Special Guest Speaker: Dr David Doolette</i>	
1005 – 1020	Mr Tony Turner <i>Oxygen seizures</i>	
1020 - 1030	ADAS Derek Craig Award. <i>Presented by Mr Bob Ramsay</i>	
1030 - 1100	Morning Tea	<i>City Rooms Foyer 1,2,3,4</i>
Session 6	CNS Toxicity / Police Diving Session Chair: Troy Pudney Royal Adelaide Hospital	
1100 - 1135	Update on CNS Toxicity Audit in Australian and New Zealand Hospitals <i>Dr Susannah Sherlock</i>	
1135 - 1230	Police Diving (SAPOL) <i>Sergeant David Bacchus</i>	
1230 - 1330	Lunch	<i>City Rooms Foyer 1,2,3,4</i>
Session 7	Technology & Diving / DCS human trial / HBOT in UAE Session Chair: Steve Goble Royal Adelaide Hospital	
1330 - 1415	Technology aiding exploration; A deep cave diving project in NZ” <i>Dr Richard Harris</i>	
1415 - 1445	Overview: Conduction of a Human Trial with DCS as endpoint <i>Special Guest Speaker: Dr David Doolette</i>	
1445 – 1500	HBOT & Diving in the United Arab Emirates <i>Dr Salem Alkuwaiti</i>	
1500 - 1530	Afternoon Tea	<i>City Rooms Foyer 1,2,3,4</i>
Session 8	Deep dive / Wound care products / Clinical Quality Registry Session Chair: Troy Pudney Royal Adelaide Hospital	
1530 - 1545	Deepest Commercial Dive ever undertaken in Australia <i>Mr Billy Hancock</i>	
1545 – 1605	A Systematic approach to evaluating wound care products for use in Monoplace Oxygen and multiplace chambers <i>Mr Corry Van Den Broek</i>	
1605 - 1640	A Hyperbaric Clinical Quality Registry for Australia and New Zealand <i>Dr David Cooper</i>	
1900 - 2400	Dinner- (1845 Bus pickup site to be confirmed)	Adelaide Bowling Club

Saturday 19th August 2017

0845 - 0900	Conference Registrations	City Rooms Foyer 1,2,3,4
	Program Commences City Rooms 1 & 2	
Session 9	HOTRIX trial / Mixed Gas Myths / Diver Emergency Service Session Chair: Czes Mucha Royal Adelaide Hospital	
0900 - 0935	HOTRIX trial: What happened? <i>Dr Susannah Sherlock</i>	
0935 - 1000	Mixed Gas Myths Special Guest Speaker: Dr David Doolette	
1000 - 1030	Diver Emergency Service <i>Dr David Wilkinson</i>	
1030 - 1100	Morning Tea	City Rooms Foyer 1,2,3,4
Session 10	Farewell Session / Multicentre Trial meeting Session Chair: David King RBWH, Brisbane	
1100 - 1110	SPUMS 2018 Announcement <i>Dr Cathy Meehan</i>	
110 - 1120	HTNA meeting 2018 Fiona Stanley Hospital Hyperbaric Unit	
1120 - 1130	Farewell Address HTNA President	
1130 - 1230	Multi Centre Trial Meeting	

Abstracts

Thursday 17th August

Dr David Doolette: History of U.S. Navy Decompression Procedures

The U.S. Navy has made substantial contribution to the development of decompression procedures and treatment tables. Just a few are the first ever heliox decompression tables in 1932, early experiments with trimix from 1962-6, the first ever human saturation dives in 1962, and the development of the U.S.N. Treatment Tables 5 and 6. The U.S. Navy originally adopted the air decompression tables developed by Haldane for the Royal Navy (the "C&R" tables) but later developed the Standard Decompression Table that first appeared in the U.S. Navy Diving Manual in 1943. These were replaced in 1959 by the Standard Air Decompression Table, which introduced the well know surface interval credit and residual nitrogen time tables for repetitive diving. These decompression tables were widely recognized and used for almost a half century but were replaced in U.S. Navy Diving Manual, Revision 6 in 2008 by the Air Decompression Table. This change integrated air decompression, in-water oxygen decompression, and surface decompression with oxygen into a single table. The Air Decompression Tables was recalculated using a new algorithm for the U.S. Navy Diving Manual, Revision 7 in 2016. The new algorithm allowed calculation of the no-stop limits that had previously been executively edited to be the same as those from the Standard Air Decompression Table. This new algorithm is therefore suitable for use in a dive computer.

Mr Peter Wilson: Determined2: Immersion Therapy™

What is Immersion Therapy?

You might be asking yourself what is **Immersion Therapy™**? and that's a great question.

The Immersion Therapy service is becoming recognised across Australia and Internationally as a world first way in which people with injury or disability can have access to movement and benefits like never before, winning the 2016 National Disability Awards in Canberra for Excellence in Inclusive Service Delivery. These awards are internationally recognised as part of the United Nations International Day of People with Disability, you can view images and video footage on our website. As they say, "A picture speaks a thousand words".

The **Immersion Therapy™** service was specially developed to offer freedom of movement within a weightless environment and work within the well-recognised benefits of a **Biopsychosocial model**. It has demonstrated great results for those who have participated.

Dr David Wilkinson: Determined2: Immersion Therapy™

Immersion in water offers a range of therapeutic advantages to people with disabilities, including buoyancy, weightlessness and gentle resistance to movement. Many people with disabilities have achieved these benefits by undertaking SCUBA training; however the open water environment does pose a range of potential dangers. Immersion Therapy is only provided in the controlled environment of a swimming pool with direct supervision. Under these conditions, being able to safely undertake Immersion Therapy is no longer a "fitness-to-dive" question and this opportunity can be opened up to a much more broad and inclusive population. This talk will look at what is currently happening in the water and why Immersion Therapy is different.

Mr Paul Smith: Hyperbaric Tunnelling Interventions

Modern tunnelling, hyperbaric intervention and the Wesley Centre for Hyperbaric Medicine's involvement in the Kenmore-Jindalee cross river pipeline.

Abstracts

Dr David Doolette: Inner Ear Decompression Sickness

Decompression sickness (DCS) affecting the vestibulo-cochlear apparatus manifests as vertigo, nausea with vomiting, tinnitus, or hearing loss. These manifestations can onset during decompression and a diver in the water can be debilitated and at risk of drowning. Inner ear injury characteristically occurs without other manifestations of DCS in the following circumstances: soon after surfacing from relatively deep air and nitrox diving; after upward excursions from saturation; during decompression from deep mixed-gas diving; and with heliox-to-nitrox breathing gas switches at extreme depths. The selective vulnerability of the inner ear in these circumstances is the result of unusual, diffusion-limited gas exchange, that may promote autochthonous bubble formation, or may render the inner ear uniquely susceptible to bubbles arriving in the arterial blood after right-left shunt across a patent foramen ovale.

Mr Tony Turner: Drinking and Diving

In 2012 Marguerite St Leger Dowse, from DDRC records numbered 818 divers in the UK and analysed their drinking habits.

In 2017 The Wesley Centre for Hyperbaric Medicine and DDRC records numbered 418 divers in the Australasia area and this report is the analysis of those records.

Abstracts

Friday 18th August

Mr Troy Pudney: Free-Com Freespeak II: Testing and evaluating new communication equipment in a Hyperbaric environment

Removal of existing Radio Frequency forcing the replacement of radios used at the RAHHMU. Topic covers initial issues finding replacement, issues with new radios and batteries. Also covered is the testing and evaluation plan put in place and the outcomes of this plan.

Dr David Doolette: Cave Marathons

One of the birth places of technical diving was in the exploration of the underwater caves of the Woodville Karst Plain. Exploration of the cave systems continues to this day, and over 50 km of submerged cave passage, at typical depths of 80 metres, has been explored and mapped. This talk will give an overview of the exploration of the Woodville Karst Plain, the techniques used, and focus on several exploration projects from the last decade. With dive times ranging from 10 to 30 hours, these are some of the longest dives ever conducted by technical divers.

Mr Tony Turner: Oxygen Seizures

The toxic effect at pO₂s over 1.6 ATA is primarily on the brain.

Data in the literature reports approximately + or - 9 in 10,000 (it is a rare event). The Wesley Centre for Hyperbaric Medicine had a patient who had an oxygen seizure in front of the black box camera and it was recorded.

This presentation uses this video for education and discussion.

Dr Susannah Sherlock: Update on CNS Toxicity Audit in Australian and New Zealand Hospitals

This session is feedback on the recent retrospective cohort series reflecting practise in Australian and New Zealand Hyperbaric facilities in relation to provision of Table 14 and incidence of CNS toxicity (CNST) over a five year period from 2010 to 2015.

All Australian and New Zealand units were invited to participate and share data already routinely collected by units on CNST events with details of their Table 14.

There are 15 hyperbaric units in Australia, 2 in New Zealand, 8 in major teaching hospitals the rest being private facilities or military. We received data from 7 teaching hospitals (70% response rate) after HREC reviews. One private facility also provided data (overall response rate from all sources 47%).

Obtaining HREC approvals to share data was a major impediment to contributing data for some facilities. Two facilities who wished to contribute did not do so for this reason.

There were five different versions of the Table 14 in terms of length of table and ascent times. The difference in air breaks ranged from non to three.

Ninety six thousand, six hundred and seventy treatments were performed in 5193 patients for a range of conditions (average number per facility 13-31). One hospital was unable to supply condition being treated data and was excluded from the analysis of conditions being treated. There were 26 recorded seizures. Two hospitals had no seizures in the time frame. Overall incidence of CNST for Table 14 was 2.4 per 1000 and individual patient risk was 4.5 per 1000. This is higher than previously reported in adults.

Abstracts

Brevett Sergeant David Bacchus: Police Diving (SAPOL) Role and case study

How Water Response members are selected and the diving course process. What methods used to search for items underwater, Photographs of jobs attended and short stories behind some of them.

Dr Richard Harris : Technology aiding exploration: A deep cave diving project in NZ

Dr David Doolette: Overview: Conduction of a Human Trial with DCS as the endpoint

To test procedures designed to minimize the risk of decompression sickness (DCS), there are two accepted endpoints: the occurrence of DCS, or ultrasonic measurement and grading of venous gas emboli (VGE). The number of VGE are weakly associated with the risk of DCS, and VGE are properly used as a surrogate or auxiliary endpoint for DCS. There is surprisingly little validation of VGE as a surrogate or auxiliary endpoint for DCS, few published studies define why VGE is used as an outcome measure, and many published studies using VGE as an endpoint are underpowered. Using DCS itself as an endpoint has its challenges. In tests of operationally relevant decompression procedures, the incidence of DCS will be rare, and it is only practicable to establish that a procedure does not have a risk greater than some unacceptable level. In experiments designed to produce DCS, ethical consideration dictates experimental designs that produce statistically valid outcomes with the fewest possible cases of DCS, and that the risk of permanent injury to subjects is vanishingly small. By using sequential trial designs, it is possible to obtain statistically valid answers to some carefully constructed research questions with a relatively few cases of DCS. In laboratory trials, as a result of heightened vigilance among divers, close medical supervision, and ready availability of recompression facilities, treatment of DCS is typically initiated within an hour of symptom onset. In this setting, full resolution of DCS typically occurs before the end of a single hyperbaric oxygen treatment.

Dr Salem Alkuwaiti: HBOT & Diving in the United Arab Emirates

The past, present and future of dive and hyperbaric medicine in UAE.

Mr Billy Hancock: Deepest Commercial Dive ever undertaken in Australia

Discuss the process of putting together a working dive to 272M, Problems encountered and the final outcome.

Mr Corry Van Den Broek: A Systematic approach to evaluating wound care products for use in Monoplace Oxygen and mutiplace chambers

The Royal Hobart Hospital has commissioned two additional 4100H Sechrist monoplace oxygen chambers to supplement the reduction in multiplace chamber treatment slots while the redevelopment of the hyperbaric facility is undertaken. In total on a standard treatment day there is now the availability of 9 monoplace treatments runs, whereas previously there were only 3 daily treatments. This has required a greater number of wound care patients to be treated in the Oxygen filled monoplace chambers. In accordance with the NFPA 99 and Australian standards, there are greater restrictions that are required to adhere to ensure maximum safety of staff and patients. In conjunction with NFPA and AS4774.2, a simple evaluation process has been employed within the unit that clearly identifies which products can or cannot be used within the chamber.

Dr David Cooper: A Hyperbaric Clinical Quality Registry for Australia and New Zealand

The identification of ineffective therapies, or those with an unduly elevated clinical risk/benefit ratio, is of considerable interest to healthcare funders and patients alike. The evidence-base underlying hyperbaric oxygen therapy (HBOT) is, unfortunately, suboptimal and regulatory guidelines directing who may be offered this intervention

Abstracts

in Australia are contentious. Data documenting the safety and efficacy of HBOT in our region are also lacking. Existing unit-level activity data provide insight into therapeutic trends around our region but do not collect standardized treatment or outcome information.

Clinical quality registries systematically collect an agreed minimum dataset across multiple sites, including clinically-relevant patient-level outcome measures. The number of specialised registries in Australia is growing rapidly in response to community demands for better monitoring of healthcare outcomes. Such registries provide feedback to clinicians and assist practice changes of clinical and economic significance. Such datasets also provide valuable baseline information to inform the development of new research programs.

An independent registry is necessary to provide a comprehensive data resource regarding the care and outcomes of Australasian hyperbaric patients, and refute misconceptions arising from recent misinterpretations of flawed government datasets. Such a registry should collect accurate data on conditions treated, manner of treatment delivery, complications encountered and therapeutic benefit. Despite resource constraints, the increasing scrutiny of hyperbaric medicine by external forces means that our craft group can no longer afford to avoid this issue.

The Hyperbaric Oxygen Therapy South Pacific Utilization Registry (HOTSPUR) is a custom built registry for HBOT in our region aimed at addressing these issues.

Abstracts

Saturday 19th August

Dr Susannah Sherlock: **HOTRIX Trial: What happened?**

Update on the HOTRIX trial funded by ANZCA and the spin off trial it led to.

Dr David Doolette: **Mixed Gas Myths**

Dr David Wilkinson: **Diver Emergency Service**

Introduction

The Diver's Emergency Service (DES) telephone has provided diving medicine advice 24-hours a day since 1987.

Methods

Computerised records for the DES phone have been kept since 1991. A detailed review was undertaken for the period 1991-2007. An update is also provided for the period 2008-2015.

Results

A total of 8634 were received from 1991 to 2015, an average of 345 calls per year. Most calls have come from Australia; however the proportion of calls coming from overseas has increased steadily, now approaching 50%. Most overseas calls come from the South-East Asian region to the north of Australia. Could the symptoms be decompression illness was the question in 30-40% of calls. Barotrauma, marine envenomation, questions about fitness-to-dive and incidental medical problems were other common reasons to call.

Conclusion

The DES phone was an early mover in the telemedicine space. Review of phone records over a 25-year experience provides an interesting insight into what injuries divers sustain.

HTNA 2017 –Back to the Beginning

Links and Information

Tours

- Adelaide Oval Tours
<http://www.adelaideoval.com.au/107/adelaide-oval-tours.aspx>
- Haighs Chocolate Tours
<http://www.haighschocolates.com.au/tours>
- Penfolds Magill Estate Tour and Tasting Wine Experience
<http://www.ultimatewineryexperiences.com.au/>
- Coopers Brewery Tours
<http://tours.coopers.com.au/>

Restaurants

Our recommendations

Peel Street – 9 Peel Street Adelaide Ph. 8231 8887

Andre's Cusina and Polenta Bar – 94 Frome Street Adelaide Ph. 8224 0004

Casablaba – 12 Leigh Street Adelaide Ph. 8231 3939

Golden Boy – 309 North Terrace Adelaide Ph. 8227 0799

Little NNQ – 125 Gouger Street Adelaide Ph. 8211 8558

Sean's Kitchen – Station Road Adelaide Ph. 8218 4244 (Next to Casino)

2KW - Level 8/2 King William Street Adelaide Ph. 8212 5511

La Trattoria – 348 King William Street Adelaide Ph. 8212 3327

Wright Street Hotel -88 Wright Street Adelaide Ph. 8211 8000

The Kentish – 23 Stanley Street North Adelaide Ph.8267 1173

Rob Roy Hotel – 106 Halifax Street Adelaide Ph.

There are lots of great restaurants and pub's in and around the city and lots of great drinking bars just of Hindley Street (Peel & Leigh Street) these are just a few of our suggestions!

Transport

<http://www.adelaideairport.com.au/parking-transport/transport-options/>

Shuttle Bus

Airport City Shuttle offers a Door to Door service from Adelaide Airport to Adelaide Hotels and Businesses. Group discounts are available.

Booking are not needed, please follow instructions below:

On arrival please make your way to the Information and Tourism Bookings Booth located on the ground floor

of the terminal in a central location. The friendly staff will help you with your booking and inform you of the next shuttle time (approximately every half hour).

City Shuttle Bus operating hours are as follows:

Monday – Friday from 6am – 9pm.

Saturdays from 6am – 6pm.

Sundays from 6am – 5pm.

The cost is **\$10** per person each way. Contact City Shuttle for more information on Group bookings 0433 533 718.

Taxi

Taxis are a convenient way to get to and from the airport. There is a designated taxi rank located at the left of the pedestrian plaza as you walk out of the terminal. Concierges provide a safe environment and allocate taxis to passengers. They can also organise taxis with baby capsules, wheelchair access, five-seaters and maxi taxis for larger groups or station wagons for large amounts of baggage,

There is a \$2 levy added to fares for taxis leaving the airport.

Adelaide Metro Bus

If you wish to use public transport to/ from Adelaide Airport, Adelaide Metro offers an express double decker bus service called JetExpress between the airport and the city.

Adelaide Metro also offers a convenient JetBus service to Glenelg, West Beach and the City, servicing all stops en route.

Both JetExpress and JetBus are Metroticket services. Single trip and daytrip tickets can be purchased from bus drivers.

Click the links above for more information to find your closest service stop. Alternatively call Adelaide Metro Infoline 08 8210 1000.

Getting Around Adelaide

Adelaide is an easy city to get around! While a walk in town is the simplest way to go, you have more options than just that. Jump on the free City Connector or catch a tram.

Points of Interest

Adelaide Zoo (home to Wang Wang & Funi, the only Giant Pandas in the Southern Hemisphere)

Art Gallery

Museum

Glenelg (easy to get to via tram)

Adelaide Oval

Adelaide Botanic Gardens

Wine Time!!

Adelaide and South Australia are known for producing spectacular wine, so there is no escaping a visit if you have time to spare to a local wine region, while you're in town! Daily tours are available from the city to both regions, or if you're looking at making your own adventure, each is easily accessed and navigated by car.

Other Interesting Links on Adelaide:

<http://safoodandwineguide.realviewdigital.com/#folio=1>

<http://www.adelaidecitycouncil.com/explore-the-city/see-and-do/food-drink/>

<http://www.adelaidecitycouncil.com/explore-the-city/see-and-do/nightlife/pubs>

<http://www.adelaidecitycouncil.com/explore-the-city/see-and-do/food-drink/restaurants/>

Australia and New Zealand Hyperbaric Treatment Data 1 July 2016 – 30 July 2017

Diagnosis	Sub Category	Fiona Stanley	Auckland	Prince of Wales	Townsville	Christchurch	Darwin	Royal Brisbane	The Alfred	Royal Hobart	Royal Adelaide	WCHM	
Permanent	Doctors (FTE)	1.4	1	7	1	1	1	2.7	1.74	2.3	1.6	0.6	
	Doctors (Actual)				1	5	0	4		1.61	1	4	
	Staff (FTE)	Registrar/Resident (FTE)	2		1	1	0	0	1	1.1	1	1	0
		Reg/ Res (Actual)	2			1		0	6.5		0.5	1	0
	Nurses (FTE)	Nurses (FTE)	3.8	1	5	3.3	2.4	2	13	5.26	2.15	3	1.3
		Nurses (Actual)	2.7			3.3	5	1	2		1.9	4	18
	Technicians (FTE)	Technicians (FTE)	4	2	2	2	1.9	1	2	3.15	2.6	3	1.2
		Technicians (Actual)	9			2	3	1	1		2.6	3	2
	Secretary		1		1	1	0	0	1	1.1	0.5	1	2
	Other					0	0	0	2		1	0	
Casual Staff (FTE)	Doctors	5	3	2	3	1	7	2		0	3	0.4	
	Nurses	16	7	8	13	0	12	3		13	18	3	
	Technicians	5	3	3	1	0	3	0		2	2	0	
	Other			0	0	1	0	0		0	0	0	
Number of own staff trained (last 12 months)	Doctors	5		1	2		0	0	1	2	0	1	
	Nurses		2	0	0		2	0	8	0	0	3	
	Technicians			0	0		0	1	0	0	0	2	
	Other			0	0		0	0			0	2	
Number of outside staff trained (last 12 months)	Doctors			0	0		0	0	2	0	0	1	
	Nurses		2	0	0		0	0	8	0	0	1	
	Technicians			0	0		3	0		0	0	0	
	Other			0	0		0	0		0	0	0	
Incidents	DCI	0	0	0	0	0	0	0	1	0	0	1	
Staff	Barotrauma-Ear-Grade 0-1	1	0	0	0	0	0	0		0	0	0	
	Grade 2-3	1	0	0	1	0	0	0		0	0	0	
	Grade 4-5		0	0	0	0	1	0		0	0	0	
	Sinus		0	0	0	0	0	0		0	0	0	
	Dental		0	0	0	0	0	0		0	0	0	
	Other		0	0	1	0	0	0		1	0		
	Total Staff Incidents		2	0	0	2	0	1	0	1	1	0	1
Patients	Barotrauma-Ear Grade 0-1	14	0	1	3	0	4	13	nr	7	1	6	
Side Effects	Grade 2-3	21	4	2	9	0	0	23	nr	9	5	3	
	Grade 4-5	0	1	0	1	0	0	0	nr		1	0	
	Sinus	0		0	2	0	0	1	nr		0	1	
	Lung	0		0	0	0	0	0	nr		0	0	
	Dental	0		0	0	0	0	0	nr		0	0	
	GIT	0		0	0	0	0	0	nr		0	0	
	Acute Claustrophobia	4		0	0	0	2	3	nr	1	0	3	
	Oxygen Toxicity-Pulmonary	0	1	0	0	0	0	0	nr		0	0	
	- CNS Seizure 0-10m	0		0	0	0	0	0	nr		0	0	
	10-15m	4		0	1	0	0	0	nr		0	0	
	15-20m	0		0	0	0	0	0	nr		0	0	
	Non-seizure 0-10m	0		0	0	0	nr	0	nr		0	0	
	10-15m	0		0	0	0	nr	0	nr	2	0	0	
	15-20m	0		0	0	0	nr	0	nr		0	0	
	Eye Sight Changes	26		0	n/r		nr	?	nr		0	34	
	Abort Treatment	22		0	22		6	4	nr	4	0	0	
	Hypoglycaemia	3		0	0		5	0	nr		1	0	
Other	1		19	0		0	0	nr		0	0		
Total Pt Incidents			6	22	38		18	44		24	8	47	

Note:
n Nil
nr Data Not Recorded
np Data Not Provided
ic Incomplete

Diagnosis	Sub Category	Fiona Stanley	Auckland	Prince of Wales	Townsville	Christchurch	Darwin	Royal Brisbane	The Alfred	Royal Hobart	Royal Adelaide	WCHM			
Bubble Injury	DCI	33	9	11	13	7	1	9	10	13	2	1			
	AGE - Diving			1	2	0	0	1	3	1		0			
	- Iatrogenic			1	0	0	0	0	4			0			
	Other			0		0	0	0	nil						
	Total	33	33	13	15	7	1	10	17	14	2	1			
Acute Ischaemic Conditions	Compromised Flaps & Grafts	2		1	5	0	0	4	nr	1		4			
	Crush Injury	0		0	1	0	0	0	nr	2		0			
	Compartment Syndromes	0		1	0	0	0	0	nr			0			
	Reperfusion Injuries	5		1	0	0	0	3	nr			0			
	Other	0		1	2	0	0	0	nr			1			
Infective Conditions	Clostridial Myonecrosis	0		1	0	0	0	0	nr			0			
	Necrotizing Fasciitis	10		2	1	2	0	0	20	4	1	0			
	Fungal	0		0	0	0	0	0	3			0			
	Malignant Otitis Externa	1		0	0	0	5	0	nr			0			
	Refractory Osteomyelitis	0		0	12	0	0	0	7	1	1	2			
	Intracranial Abscess	0		0	0	0	0	0	nr			0			
	Other	0		0	0	0	0	1	1	1		0			
Radiation Tissue Damage	Osteoradionecrosis - Est.	27	2	19	4	12	1	6	9	6	9	10			
	- Proph	27	4	30	6		0	5	10	6	34	15			
	* Soft Tis. Rad'necrosis - Est		7	76	17		5	23	nr		15	32			
	- Proph		3	0	1		0	0	nr						
*Soft Tissue Rad'necrosis Est divided into -	Soft Tissue Rad'necrosis wound	9	3	5	nr	12	3	2	5	16	1	14			
	Radiation Cystitis	24	6	33	nr	5	2	11	16		9	14			
	Radiation Proctitis	4	2	19	nr	3	0	9	1		2	4			
Problem Wounds	Diabetic Ulcers	7	1	15	3	5	13	9	8	16	2	21			
	Vascular Ulcers	11	10	3	10	1	0	2	4	7	1	9			
	Decubitus Ulcers	0	3	0	0		0	0	nr			1			
	Frostbite	0		2	0		0	0	nr			0			
	Surgical Wounds	9	7	2	6		0	2	9		6	7			
	Spider Bite	0		0	0		0	0	nr			0			
	Calciophylaxis	0		0	0		0	0	nr		2	1			
	Crohns	1		6	0		0	0	6			1			
	Other	4	5	15	0	3	0	13	42		1	4			
Gas Poisoning	Carbon Monoxide	4	6	3	0	13	0	4	nr	4	2	0			
	Other	0		0	0		0	0	nr			0			
Ocular Conditions	Retinal Arterial/Vein Occlusion	4		0	2	9	0	4	nr	4		1			
	Other	0		16	0		0	0	1			0			
Miscellaneous	Thermal Burns	3		0	0		0	1	3			0			
	Except'nal Blood Loss Anaemia	0		0	0		0	0	nr			0			
	↑ Radiosensitivity of Tumours	0		0	0		0	0	nr			0			
	Sham / Isobaric e.g. HORTIS	0		0	0		0	0	nr			0			
	Sudden Idiopathic Hearing Loss	1		10	4		0	27	4			0			
	Other	1		8	3	2	0	2	4		2	5			
Ventilated Patients	Ventilated Patients	5		4	1	3	0	1	nr	8	1	0			
	Ventilated Pt Treatments	14		10	3	5	0	1	92	8	3	0			
Paediatric Patients	0 up to 8 years old	-		2	0	2	0	0	nil			0			
	8 up to 16 years old	-		2	nr	0	0	1	nil			0			
Treatments	> 3 ATA e.g. Comex 30	0	32	0	0	0	0	0	nil			0			
Number of Patients	Elective	175	50	nr	62	36	24	66	116	56		115			
	Acute	-	9	nr	12	31	nr	50	33			0			
	Emergency	78		nr	17	23	1	22	26	26		0			
	Total	253	59	428	91	64	25	138	175	82	78	115			
Number of Patient Treatments	Elective	3909	1444	nr	2167	1050	474	nr	2664	1250		3058			
	Acute	292	46	nr	214	72	nr	nr	511	60		0			
	Emergency			nr	86		2	nr	88	30		0			
	Total	4201	1490	3317	2467	1122	476	3334	3263	1340	2033	3058			
Chamber Runs	Multiplace	573	428	587	572	507	219	811	792	339	598	575			
	Monoplace	1334	N/A	1077	0	na	0	287	737	623		0			
	Sham/Isobaric e.g. HORTIS	0	Nil	0	0	nil	0	0	0			0			
	Total	1907	428	1664	572	507	219	1098	1529	962	598	575			

Invited Guest Speakers 1993 - 2017

Year	Host Unit	Name	Institution
1993	Darwin	Dr Roy Myers	
1994	Fremantle	Jon Mader	
1995	Melbourne	Dr Richard Moon	Duke UNI
		Dr E Cuauhtemoc Sanchez Rodriguez	Mexico
1996	Hobart	Dick Clarke	
		Professor Dirk Jan Bakker	Med Dir Hyper, Uni Amsterdam
		Dr Bill Hamiton	
1997	Sydney	Eric Kindwall	
		Laura Josefsen	Nurse Cons - National Baromedical
		Dr Ian Unsworth	Royal Navy, Founding member SPUMS
1998	Townsville	Dr John Williamson	
		Folke Linde	Karolinska
		Mrs Helen Norvell	President Baromedical Nurses Assoc.
		Steve Fabus	Hyper Tech St Lukes Milwaukee
1999	Adelaide	Caroline Fife	Pres UHMS
		Wilbur T Workman	
		Paul Sheffield	
2000	Brisbane	John Kersher	Tech - Honorary member HTNA
		Professor William Zamboni	Nevada - Plastic Surgeon
		Simon Mitchell	
		Valerie Larson-Lohr	Dir Centre Wound care and Hyper Med
		Mr Richard Dunford	Manager Virginia Mason Med Centre
2001	Fremantle	Neil Hampson (unable to fly due to 9/11)	
		Ron Nishi	
		Dr Mike Bennett	
2002	Christchurch	Professor Des Gorman	
		Neil Hampson	Virginia Mason Centre- "CO Poisoning"
		John Lippman	DAN
		Karyn Balance	Science degree/zoology/Iron woman, triathlete
2003	Hobart	David H Elliot	UK
		Dr Valerie Flook	Physicist Decompression/tables
		Dr Ian Miller	
2004	Sydney (with UHMS)	No guest speakers	
2005	Melbourne	Tom Workman	
		Sue Churchill	Salt Lake City
		Dr Armin Kemmer	Medical Dir Murnau, Germany
2006	Townsville	Ian Poiner	CEO AIMS
		Richard Smerz	Hawaii
		Claude Wreford Brown	
2007	Adelaide	Des Gorman	
		Dr Mike Davis	
		Dick Clarke	
2008	Wesley (Gold Coast)	Simon Mitchell	
		Martin DJ Sayer	Zoology/Physiology
		Michael B Strauss	Professor Orthopaed Surgery
		Professor Zee Upton	Wound Repair and Regeneration- Qld Uni
		Dr Caroline Acton	

2009	Fremantle	Dr John Feldmeier Mike Bennett	Profess / chair Rad Onc
2010	Darwin	Profess Raymond Williamson Tom Workman Jacek Kot Jan Rice Simon Mitchell	Profess Orofacial Surg. WA Anaes ICU Poland Wound care spec - Vic
2011	Sydney	Dr Tim Smith Dr Harriet Hopf Dr Paul Sheffield Dr David Smart	Maritime Archaeology Pres Wound Healing Soc Texas Aerospace/Hyper physiology
2012	Christchurch	Mr Claude Wreford-Brown Richard Moon Catherine Hammond David Mullins Bill Day Tom Workman	Pres Baromedical Nurses Assoc Duke Link between DCI and PFO Nursing spec wound care Free Diver CEO Underwater Work/Robots
2013	Hobart	Bruce Cameron Simon Mitchell Barry Bruce	Canada Toronto - Biomarkers CSIRO white sharks
2014	Brisbane	Stephen R Thom Stacy Handley Dr Simon Mitchell	Unable to attend - participated via video link
2015	Melbourne	Stephen R Thom Professor Mike Grocott	Auckland University Profess Emerg med - Micro particles study Uni Southhampton
2016	Hamilton Island	Dr Tracey Symmons Dr Ken Thistlethwaite Susan Doherty Hugh Sweatman	The Townsville Hospital The Townsville Hospital The Townsville Hospital Australian Institue of Marine Science
2017	Adelaide	Dr David Doolette Dr Richard Harris Peter Wilson Sergeant David Bachus	Naval Experimental Diving Unit Aeromedical Retrieval, SA Ambulance Determined2 Police Diver, SA Police (SAPOL)