



Australian Government

Department of Defence

The background of the cover features a large, semi-transparent anatomical illustration of a human skull and spine. The skull is shown in a frontal view with various lines indicating internal structures. The spine is shown in a side view, extending from the neck down to the lower back. The illustration is rendered in a classic, detailed style, possibly from a medical textbook. The text 'AUSTRALIAN DEFENCE' is written in a large, purple, serif font, and 'Human Research Ethics Committee' is written in a smaller, black, sans-serif font below it. The bottom of the cover has a solid purple gradient background.

AUSTRALIAN DEFENCE

Human Research Ethics Committee

Annual Report 2002/2003



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Foreword

In 1988 the Chief of the Defence Force and the Secretary for Defence established the Australian Defence Medical Ethics Committee (ADMEC) as a non-statutory body constituted according to the National Health and Medical Research Council (NHMRC) guidelines. In 2001, the Minister for Defence approved the name change to the Australian Defence Human Research Ethics Committee (ADHREC) which assembles in Canberra five times a year. This change is consistent with the national nomenclature suggested by the NHMRC and reinforces the scope of the committee's charter to encompass any research involving humans directly or indirectly in the Australian Defence Organisation (ADO). In 2000 the Defence Health and Human Performance Research Committee (DHHPRC), chaired by the Director General Defence Health Service, was established to coordinate health and human performance research within the ADO.

An individual's right to privacy is a fundamental human right but it is not an absolute right. In some circumstances it must be weighed against the equally justified rights of others and against matters that benefit society as a whole. In 1984, Australia adopted the OECD Guidelines on the Protection of Privacy and Transborder Flows of Personal Data and its principles were incorporated in the federal Privacy Act 1988 (Privacy Act) which deals with the protection of personal information. In 2000, the Privacy Amendment (Privacy Sector) Act 2000 was passed to provide protection of personal information held by organisations.

Ten National Privacy Principles (NPP) are enunciated in Schedule 3 of the Privacy Act governing the conduct of an organisation or an individual who collects, uses & discloses personal information data. In particular the NPP classified sensitive personal health information. In some circumstances, the collection, usage or disclosure of health information may involve a breach of the Privacy Act. Section 95A of the Privacy Act provides a mechanism for the collection, use and disclosure of health information necessary for the conduct of research and statistical analysis only if such activity has been approved by a properly constituted Human Research Ethics Committee (HREC) such as ADHREC.

ADHREC is chaired by the Surgeon General Australian Defence Force and consists of eight other members, each appointed by the Minister for Defence for five-year terms. During the past year, 9 observers attended the committee's activities, 35 new research protocols were considered and an average of 16 protocols was discussed at each meeting.

ADHREC exists to safeguard the rights of Australian serving men and women who participate in human research and to afford them precisely the same rights as those existing within the civilian populace.

Air Vice-Marshal Bruce H. Short RFD
Surgeon General Australian Defence Force
Chair-Australian Defence Human Research
Ethics Committee
3 October 2003

Committee members

Australian Defence Human Research Ethics Committee

Air Vice-Marshal Bruce H. Short is the Surgeon General of the Australian Defence Force, Defence Health Service, CP2-7-124, Canberra, ACT. The Surgeon General is responsible for the technical control of all Australian Defence Force health resources. The Surgeon General facilitates outreach into the civilian health community and acts in a representational capacity on behalf of the Defence Health Service. He chairs senior health committees including the Defence Health Service Advisory Council, the Australian Defence Human Research Ethics Committee, and the DVA Defence Medical Advisory Panel.

Air Vice-Marshal Short was admitted as a Fellow of the Australasian College of Physicians and practices in Sydney as a specialist general physician with a particular in cardiovascular medicine. He is a Fellow of the American College of Chest Physicians, the American College of Physicians, and was the Australasian College of Tropical Medicine. Air Vice-Marshal Short holds appointments at Royal North Shore Hospital, Sydney Adventist and North Shore Private Hospitals and is a Clinical Lecturer in Cardiology at the University of Sydney.

Air Vice-Marshal Short has completed 43 years of continuous service in the Australian Defence Force following enlistment as a private in the Sydney University regiment. Following 4 years Reserve infantry training he transferred to the RAAF medical undergraduate scheme. He graduated from the University of Sydney and commenced permanent Air Force Service in 1968 at 3 RAAF Hospital, Richmond, in NSW. In addition to clinical duties he undertook strategic Aeromedical evacuation service to Vung Tau, Vietnam. He served as



Air Vice-Marshal B.H. Short, RFD
Chair January 2001 Onwards

Senior Medical Officer RAAF Point Cook, Victoria, and Senior Medical Officer RAAF Williamtown, NSW and transferred to the RAAF General Reserve. In 1973 he deployed to 4 RAAF Hospital, Butterworth, Malaysia, as a physician.

In 1987 he transferred to the RAAF Specialist Reserve (Medical) and was appointed Consultant in General Medicine to the Director General of Airforce Health Medicine, Consultant in General Medicine to the Surgeon General and later served as Principal Reserve Medical Officer (NSW). In June 1998 he was appointed the inaugural Assistant Surgeon General (Airforce) and, from 1998 to 2003 was the foundation Editor of the Journal of the Australian Defence Health Service. He presently serves on the honorary editorial board of several Australian Medical Journals. In January 2001 he was appointed the Surgeon General Australian Defence Force.

He resides in Sydney with his wife, Joan, and they have a daughter and a son. His special leisure interests are mountain trekking, golf and the performing arts.

Chair



Professor J.H. Pearn, AM RFD

Professor Pearn has been a member of the Australian Defence Human Research Ethics Committee since 1990, and its Chair during 1998 until December 2000. During his service career, Professor Pearn has served in a number of Medical Officer, command and non-regimental positions in Australia, the United Kingdom and Papua New Guinea. He has published extensively in the area of military medicine and military history. In his civilian life, Professor Pearn is the Professor of Paediatrics and Child Health (University of Queensland) and the Deputy Head of the Graduate Medical School at the University of Queensland and the former Surgeon General of the Australian Defence Force. He is a Senior

Paediatric Consultant at the Royal Childrens and Mater Childrens Hospitals in Brisbane and Honorary Consultant in Paediatrics and Genetics to the Royal Womens Hospital, also in Brisbane. He is an Honorary Life Member of the Human Genetics Society of Australasia of which he is a past president. He is the author of some 400 papers on clinical medicine and medical research in the international refereed literature, the author of 20 books and of some 60 chapters in medical textbooks in the international medical literature. He has a special interest in medical ethics and for his work in this field was created a Fellow of Green College, the University of Oxford.

Member



Colonel Peter G. Warfe, CSC, CSTJ

Colonel Warfe is a specialist public health and tropical medicine physician with significant experience in occupational and preventive medicine at national and international levels. He is an authority on military and preventive medicine, emergency health intervention strategies in responding to national disasters and implementation of humanitarian support services, and has been responsible for the operational and humanitarian health support plans for numerous successful missions. He is a Graduate of the Army's Command and Staff College. Colonel Warfe is an Assistant Professor of Military and Emergency Medicine in the USA. He was awarded the Conspicuous Service Cross as the Senior Medical Officer, United Nations Assistance Mission to Rwanda. Colonel Warfe was the senior consultant preventive medicine physician to the United Nations Transitional Authority East Timor. Colonel Warfe has been Director of Environmental Medicine, Occupational Health and Safety, Operational Health Policy and Development, and Clinical

Policy directorates in Australian Defence Headquarters. He is the Chair of the Defence Public Health Medicine Consultative Group. Colonel Warfe is a recognised author of numerous occupational and preventive medicine publications. Colonel Warfe is a Fellow of the Faculty of Public Health Medicine, Fellow of the Australian College of Tropical Medicine, Member of the Royal Australian College of Medical Administrators, Fellow of the Australian College of Psychological Medicine, Vocationally registered General Practitioner. He is the Vice President of the ACT Division of General Practice, a member of the United Nations Advisory Committee on Traumatic Stress Syndromes the Director of Training and Chairman of the Medical Research Ethics Committee, St John Ambulance Australia. Colonel Warfe has been a member of the Australian Defence Human Research Ethics Committee since 1998. Colonel Warfe is currently the Managing Director of the Preventive Medicine and Rehabilitation Centre, Deakin ACT and a Consultant in Public Health Medicine to the Australian Medical Association.

Member



Chief Justice Terence J. Higgins

Chief Justice Terence Higgins is a resident Judge of the Supreme Court of the Australian Capital Territory and a Judge of the Federal Court of Australia, being appointed on 2 July 1990. He was born in Hobart, Tasmania but was educated at St Augustine's Christian Brothers College in Yarraville, Victoria and later, at St Edmund's College, Canberra and the Australian National University, Canberra. He was admitted as a barrister and solicitor in the ACT in 1967 and served at the bar as Queen's Counsel (ACT, NSW and Victoria) from 1987 to 1990. He was Vice President of the ACT Bar Association from 1988 until his judicial appointment in 1990. Justice Higgins first began practising law with J.J. O'Neill, solicitor in 1967 and remained there until 1971 when he became partner in the law firm Higgins, Faulks & Martin (formerly Higgins & Faulks). In 1981 that firm became Higgins Solicitors and he remained a partner until 1984 when he went to the ACT Bar.

Chief Justice Higgins is currently the National President of the Royal Life Saving Society of Australia (appointed 1997), Chairman of the St Edmund's College Board, Chairman of the Open Family Foundation ACT (as well as a National Board member), Chairman of the Australian National University's Legal Workshop Committee and Member of the Australian Academy of Forensic Sciences ACT Chapter. In the past, Chief Justice Higgins has been involved in many varied committees and associations including Chair of the ACT Community Law Reform Committee (1994-96), Senior Member of the ACT Gaming and Liquor Authority (1987-90) and President, Senior Common Room of the John XXIII College ANU (1993-95). Married to Anne with five children and residing in the Australian Capital Territory, Justice Higgins enjoys squash, chess, reading, tennis and bridge. Chief Justice Higgins was appointed to ADHREC in 1993 and has served on the Committee continuously since. He was appointed Chief Justice of the ACT on 31 January 2003.

Member



Mr David Dillon

Mr Dillon was born in Sydney, and spent most of his childhood in Sydney and the Blue Mountains. Mr Dillon graduated from Wagga Wagga Teachers College and, after completing compulsory National Service in the Army, taught in the Snowy Mountains, Cooma, Mittagong, North West NSW and Tenterfield. After completing a Bachelor's Degree at the University of New England, Mr Dillon spent over 20 years in the ACT Schools Authority, both in Schools and Schools Office positions. During that period Mr Dillon held a number of professional and community positions including President of the ACT Primary Principals' Association and President of the Australian Primary Principals' Association, representing over 7,000 Government and non-Government

schools throughout Australia. He also was the foundation President of Belconnen Soccer Club and Canberra City Soccer Club, when the latter club first entered the national Soccer League of Australia. In addition, Mr Dillon held administrative positions with the ACT Soccer Federation, the National Soccer League Executive and the Executive of Australian Soccer Federation. Mr Dillon maintains a long-term affiliation with the Anglican Church, having served in various capacities in parishes for some 40 years. He retired as Principal of Melba Primary School in the ACT in 1990. Mr Dillon is a foundation member of ADHREC and has served continuously since.

Member



Mrs Elizabeth Grant, AM

Mrs Grant is a pharmacist and a company director. She graduated from the Victorian College of Pharmacy and has had long experience in retail and hospital pharmacy. She is a life member of the Pharmaceutical Society of Australia. She was a member of the ACT House of Assembly 1979-81, a member of the ACT Parole Board 1982-1988, and a member of ADHREC since its formation in 1988. Mrs Grant was an inaugural member of the National Health and Medical Research Council Medical Research Ethics Committee from 1982 - 91, and a member of various Committees of NHMRC from 1982.

At present she is the Chairman of the NHMRC Animal Welfare Committee and a member of the NHMRC Research Committee from 2001 to present. She has been a member of the ACT Department of Health and Community Care Human Research Ethics Committee since 1994 and Chairman since 1997. Mrs Grant has also been the Chair of ACT Festivals Incorporated, 1989 - 1998. Her interests include community affairs, sport and the arts.

Member



Reverend Monsignor Max L. Davis, AM RANR

Monsignor Davis was born and raised in Perth. He first joined the Royal Australian Navy (RAN) to become an electrician. He subsequently departed the RAN to complete his seminary training in Western Australia and New South Wales, and, after graduation and ordination, was involved in teaching and parish work. He was recruited by the Australian Army into the Citizen Military Forces in 1971 and was later commissioned and appointed to the RAN. Monsignor Davis served on a number of HMA Ships and has attended USN Chaplains School, completed External Studies Staff Course and graduated from Joint Services Staff College with a Graduate Diploma in Strategic Studies. When the RAN Chaplain Branch was restructured in 1990, he was advanced to Senior Chaplain and subsequently selected for Principal Chaplain in 1993. In the same year he was made a Prelate of Honour

with the title Reverend Monsignor by Pope John Paul II and appointed Vicar General of the Military Diocese. In 1996, he was appointed as the Chancellor for the Military Diocese of the Australian Defence Force. Monsignor Davis' last full time appointment was a Director General Chaplaincy - Navy, 1993 - 1998. During that period he was Chairman/ Secretary of the Principal Chaplain's Committee - Navy, and a member of the Principal Chaplain's Advisory Group to Headquarters ADF. He was naval adviser to the Religious Advisory Committee to the Services. Monsignor Davis was appointed to ADHREC in 1994. He was consecrated Bishop as the Military orinariate of Australia on 22 August 2003 and therefore will be unable to continue his commitment to ADHREC.

Member



Doctor Alan Twomey

Dr Twomey holds a Bachelor of Science degree in Applied Psychology from the University of New South Wales and a Doctorate of Philosophy from the University of Wollongong. Dr Twomey helped fund his undergraduate studies through employment in a broad range of occupations that provided him with an in-depth and broad appreciation of Australian social diversity. Prior to, and during, his postgraduate studies, Dr Twomey was employed as a research assistant, tutor and lecturer. Subsequently, Dr Twomey joined the Australian Defence Organisation where he gained administrative experience before joining the psychology stream as a research psychologist. In 1997 he became Director of Psychology (Navy) and is currently responsible for all research undertaken by the Psychology Research and Technology Group within the newly formed Defence Force Psychology Organisation.

Dr Twomey's doctoral research involved completion of a major research thesis that included both empirical and theoretical components and incorporated elements of psycholinguistics, and cross cultural, cognitive and educational Psychology. It required the application of diverse research methods and integration of theoretical perspective of different academic disciplines. Dr Twomey now has more than 25 years experience in undertaking research in a wide range of areas, including more than 15 years in Defence. During this time he has published in a number of journals and books and has initiated many improvements to the way in which psychological research is undertaken in Defence. Dr Twomey was formally appointed to ADHREC in January 2000.

Member



Lieutenant Colonel Victoria Ross

Lieutenant Colonel Ross joined the Army undergraduate scheme while completing her medical training at the University of Melbourne and the Royal Melbourne Hospital. After two years working as a medical resident at the Geelong Hospital, LTCOL Ross came into the full time Army. Lieutenant Colonel Ross has been posted to the First field Hospital, Duntroon Medical Centre (now Canberra Area Medical unit), Headquarters Logistic Command and the Denounce Health Service Branch. LT COL Ross was awarded Fellowship of the Royal Australian College of General Practitioners in 1997, and completed a masters of Public Health in 2003 and has

commenced advance training in Public Health Medicine. She was Executive Secretary of ADHREC in July 1998 to June 2000 and was appointed a member of ADHREC in 2002.

Member



Major Rosemary Landy
Executive Secretary



Major Suzanne Turner
Minute Secretary

Major Landy graduated with honours from the Faculty of Dentistry, University of Melbourne in 1978. She joined the Royal Australian Army Dental Corps in 1980 after having spent a year doing oral surgery. She has served in fourteen locations throughout Australia in both clinical and Command and Staff roles. She has also served in New Zealand, where she was awarded a Graduate Diploma in Oral Surgery with distinction. Major Landy left the Regular Army in 2002, and is currently a member of the Active Army Reserve. Major Landy is married and has two young sons.

Major Turner graduated with a Bachelor of Pharmacy from the University of Sydney in 1989. She joined the Royal Australian Army Medical Corps that same year and was posted to 232nd Supply Company (now Defence National Storage and Distribution Centre Medical and Dental Company) at Randwick. She was then posted to 1st Field Hospital for five years, after which she returned to the renamed Randwick Logistic Company. She has also been posted to Headquarters Logistic Support Force and Defence Health Service Branch before taking up her current posting with Joint Health Support Agency. Major Turner is married to a soldier and has two young children.

Secretariat



Ms Kate Lloyd
Assistant Executive Secretary
May 2002 to November 2002

Ms Lloyd worked in the Defence Health Service Branch since January 2001 as a Service Clerk at CAMU-R. In November 2001 she moved to the Directorate of Preventative Health as a Data Operator for Operational Health Surveillance. In May 2002 Ms Lloyd took up the role of Assistant Executive Secretary for ADHREC on a temporary basis. Ms Lloyd has worked for a number of years in the health field specialising in Pathology. Ms Lloyd is married to a member of the ACT Fire Brigade, and she has two young children.



Mrs Kerrie Broderick
Assistant Executive Secretary
November 2002 Onwards

Mrs Broderick has worked within the Health Service Branch since January 1995. During her career as a Medical Sailor she was posted to HMAS Cerberus, HMAS Stirling and HMAS Creswell. Her duties included Medical Evacuations from sea, out patient duties, coordinating doctor's appointments, instructor training of First Aid and arranging admissions to civilian and military hospitals.

She carried out these duties until leaving the Permanent Service and joining the Stand-by reserves in January 2002. In February 2002 she took up a Public Service position at HMAS Albatross Medical Centre where she was employed until joining ADHREC in November 2002 as Assistant Executive Secretary. Mrs Broderick is married with one young daughter.

Secretariat



HISTORY

Australian Defence Human Research Ethics Committee

Awareness of the importance of respect for ethical codes in research involving human participants was accelerated in response to revelations of unethical practices, particularly during World War II. In June 1964 many countries of the world met in Helsinki, Finland, and created the Declaration of Helsinki to prevent future unethical practices in human research. Over the past 38 years the declaration has been amended six times.

In Australia, the National Health and Medical Research Council (NHMRC) first published the Statement of Human Experimentation in 1966. The statement has been reviewed twice, the most recent in 1999 where it was renamed the National Statement on Ethical Conduct in Research Involving Humans.

The Australian Defence Medical Ethics Committee (ADMEC) was subsequently formed to ensure that the Defence Force complied with these guidelines. The Chief of the Defence Force (CDF) and the Secretary for Defence formed ADMEC as a non-statutory body in 1988.

The first meeting of ADMEC was held in November 1989. Meetings were originally held biannually or as needed, but as the amount of research conducted in Defence has grown over the years, the Committee now meets more frequently with some out of

session determinations being made as required. A total of 54 meetings have been convened since its inception.

In June 2001 the committee changed its name to the Australian Defence Human Research Ethics Committee (ADHREC). The Committee met five times in the period from June 2002 to end June 2003. The 12th annual report covers the period from July 2002 to June 2003.

A new Australian Defence Force Publication, ADFP 1.2.5.3 Health and Human Performance Research in the Australian Defence Organisation - Manual for Researchers was published in early 2003. It aligns the function of ADHREC with the Defence Health and Human Performance Research Committee (DHHPRC). Following publication of the ADFP 1.2.5.3 the Defence Instruction DI(G) Admin 24-3 Function, Structure and Procedures for Obtaining Clearance for Research from the Australian Defence Medical Ethics Committee will be amended to reflect the current requirement and procedures applicable to human research in the ADO.

Committee Members

During the period between July 2002 to June 2003 the committee membership remained constant. The structure of the Committee, which meets NHMRC guidelines, is detailed on page 44.

During this reporting period issues of committee membership - recruitment and replacement of committee members, prompted a review of the procedures that ADHREC have utilised to staff the committee.

With the impending completion of appointment terms for a number of committee members, the committee has undertaken to stagger appointment terms to ensure that continuity is maintained and large losses of committee corporate knowledge in a short space of time is minimised.

The secretariat had one change during the July 2002 - June 2003 period, with the departure of Ms Kate Lloyd and appointment of Mrs Kerrie Broderick as the Assistant Executive Secretary.

Several guests were invited to attend meetings in 2002/03:

The Chair invited Wing Commander John Hatfield from the Health and Human Performance Research Committee (HHPRC) to brief ADHREC on the draft of Defence Science and Technical Organisation (DSTO) Ethics Guidelines involving Humans. He explained that, flowing from the last HHPRC meeting, it was identified that the strategic area of DSTO responsible for research issues must give more consideration to ethics issues. This draft document was compiled and presented to ADHREC for comment and endorsement. Wing Commander Hatfield has been invited to attend all ADHREC meetings as a Permanent Observer.

The Chair also invited Captain Jenny Graham (Director of Defence Force Nursing) to address ADHREC on the ACT Nurse Practitioner trial. Captain Graham said that the Directorate of Defence Force Nursing is currently examining models for Military Nurse Practitioners and that this trial has helped show that there is a realistic future for the implementation of Military Nurse Practitioners within Defence.

Group Captain James Ross (Director Health Projects) was invited by the chair to address ADHREC in regards to the Study of Health Outcomes in Aircraft Maintenance Personnel (SHOAMP). It was discussed that the SHOAMP study did not fit the definition of a clinical trial, because there are no clinical interventions as part of the study. ADHREC agreed that this particular protocol fell under the umbrella of a health study, not a clinical trial.

Attendance at meetings and expenditure details are listed on pages 45 and 47 respectively.

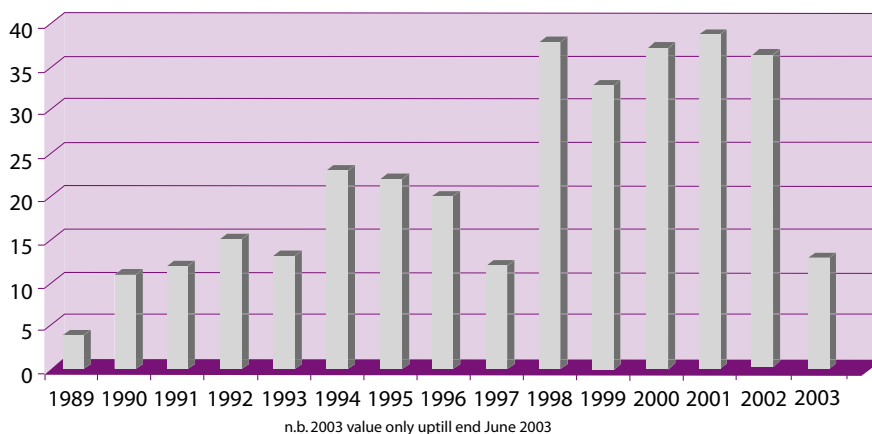
History

New Research Projects Considered During the Period June 2001 - July 2002

The Committee received 35 new protocols during the reporting period. These protocols are detailed on page 17-19. The status of these protocols as at 30 June 2003 is as follows:

Protocol Status	Number
In Progress (approved)	24
Pending Approval	1
Approval Withdrawn	0
Finalised	1
Completed	2
Withdrawn by researcher	5
Not Approved	2
Total	35

Number of New Protocols Considered by ADHREC by Year



New Research Protocols Received & Considered During the Period July 2002 - June 2003

Protocol Number	Research Title	Status
293/02	Dental caries experience in Australian army recruits	In progress
294/02	Validity and responsiveness of a treadmill test for Lower Limb Compartment Syndrome (LCCS).	Withdrawn
295/02	An investigation into the psychological impact on Australian Armed Defence Force Personnel following their medical discharge from service after acquiring an injury or disability.	Withdrawn
296/02	The psychological impact of operational deployment: the role of psychological wellbeing, trauma, alcohol use, loneliness and anger.	In progress
297/03	The prevalence of mental health disorders in the ADF and their relationship to population characteristics.	Pending
298/02	Research study into women's expanding role in the Australian defence force: peacekeeping and combat.	In progress
299/02	Analysis of dental pulp from extracted third molar (wisdom) teeth following transcutaneous nerve stimulation.	In progress
300/02	Stressed are the Peacemakers: Chaplains and Chaplaincy in East Timor.	In progress
301/02	Comparative study of the tolerability and safety of various primaquine eradication regimes in Australian service personnel returning from deployment to East Timor.	In progress
302/02	ADF physical employment project.	Finalised

Research Protocols



303/02	Validation of Combined Altitude Depleted oxygen (CADO) paradigm as a tool for hypoxia training of ADF aircrew.	In progress
304/02	Laser ozon trial.	Completed
305/02	Study of body mass index in Royal Australian Navy personel following the introduction of a benchmark physical fitness test in 1998	Not approved
306/02	Evaluation of a new repellent formulation against mosquitoes in Australia.	In progress
307/02	Evaluation of the user acceptability of a new repellent by soldiers.	In progress
308/02	Evaluation of a mosquito net for patrolling soldiers.	Withdrawn
309/02	The improvement of sound localisation through compensation for audiometric thresholds.	Withdrawn
310/02	Enhancing the coping skills of submariners: an evaluation of the effectiveness of skills based stress management training.	In progress
311/02	An investigation into the role of expectations of control as a mediator between learned helplessness attributions and coping style amongst recruits in basic military training.	In progress
312/02	From turnover intentions to actual turnover: the role of stress and personality.	Withdrawn
313/02	The improvement of sound localised through compensation for audiometric thresholds.	Not approved
314/02	Iron intervention study.	In progress
315/02	Combat ration pack components for promotion of bowel health.	Completed

Research

316/02	Psychophysiological indices of situation awareness.	In progress
317/03	Psychophysiological effects of virtual environment.	In progress
318/03	Fatigue and human performance in the maritime environment.	In progress
319/03	A study to examine the interaction of load mass and environment on physiological strain, physical performance and injury risk during load carriage.	In progress
320/03	A study to examine the dexterity and tactility of selected chemical and fire retardent protective gloves.	In progress
321/03	Significance of relationships between lifestyle, support mechanism and work stress on occupational satisfaction of Navy personnel.	In progress
322/03	"Mission operations safety audits: operational self reports in a multi-crewed flight environment"	In progress
323/03	Project air 5367 - research trial into the use of a Modified Transaero Inc communications ear piece (cep) in the Hawk 127 aircraft.	In progress
324/03	The adjustment and reintegration experience of army reserve personnel following full time service: a longitudinal case study.	In progress
325/03	Factors affecting tactical decision making and the impact of changes in Commanders intent on mission outcomes.	In progress
326/03	Effect of deployment on physical fitness	In progress
327/03	Investigating perceptions of decision-making in Command headquarters.	In progress

Research



ADHREC Endorsed Projects

completed during the period July 2002 - June 2003

Protocol 133/97

Vitamin Status of Soldiers.

The objective of this study was to determine the adequacy of Army recruits' usual diet before commencing training. To identify problems which may be addressed in future preventative health programs.

Recruits completed a health and diet questionnaire, were weighed and donated a fasting blood sample for measurement of cholesterol, fasting triglycerides, apolipoprotein B, homocysteine, ferritin and vitamins (total antioxidant capacity, folate, thiamin, riboflavin and vitamin B6). Recruits on their first day of Army recruit training were invited to participate. Participants recording an implausible level of energy intake or who did not complete the questionnaire were excluded. The final sample included 107 (males 91) for dietary survey and 184 (males 159) for biochemistry testing.

Recruits mostly had ideal body weight, had a high rate of smoking (26%) and high participation in organised sports. The average diet was too high in fat and unbalanced with respect to recommended core food groups. Recruits were at risk of eating insufficient calcium, magnesium and zinc and folate, thiamin and riboflavin deficiencies were revealed. Females were at risk of iron deficiency. Half had at least one risk factor for cardiovascular disease.

Nutrition education should aim to lower the prevalence of cardiovascular risk factors and address the special dietary

needs of female personnel. Education strategies need to build an awareness of the association between lifestyle factors and increased risk of cardiovascular disease as well as improving the eating habits of personnel.

Protocol 134/98

Nutritional Status of Soldiers: Combat Ration Pack Trial.

The health and psychological effects of combat ration pack (CRP) feeding during 12 days of military training in a tropical environment were investigated. Three groups of air defence guards (ADG's) received either: freshly prepared foods (fresh group, 15 mega joule (MJ), 3600 kcal, N=13), full CRP (15 MJ, 3600kcal, N=10), or one-half CRP (7.5MJ, 1,800 kcal, N=10). Underconsumption by the full CRP group resulted in CRP groups experienced weight loss, protein catabolism, and immune suppression (both cell-mediated and humoral), whereas the fresh group maintained their weight and protein balance and cell mediated immune status. CRP groups reported greater fatigue than the fresh group. All ADG's experienced poor sleep quality and declined folate, and iron status. ADG's drank insufficient water to prevent dehydration. In the medium term, ADG's were able to adapt to restricted food consumption and poor sleep quality with no decrement in physical fitness or cognition.

Protocol 153/98

Investigation of Surrogate indices of body core temperature for the measurement of thermal strains in soldiers in tropical climates.

Standard methods of core temperature (T_c) measurement, in the oesophagus (T_{es}) or rectum (T_{re}), are poorly suited to athletic, occupational or military application, hence the desire for development of less obtrusive indices. Gastro-intestinal radio-pill (T_{gi}), infra-red tympanic (T'_{ty}) and insulated skin (Tinskin) temperatures may provide a solution but are not faultless. The measurement of T_{gi} is expensive and incurs problems with sequential application. T'_{ty} is readily contaminated by ambient temperature if methodology is inadequate. Tinskin shows some promise as a surrogate index of T_c (Taylor, et al., 1998), but has not been fully validated.

We examined the accuracy (relative to T_{es} and T_{re}) of T_{gi} , T'_{ty} and Tinskin as surrogate measures of T_c in military applications - including periods of rising, falling and static T_c , under various environmental conditions. Participants were thirteen heat-acclimatised, euhydrated, healthy male volunteers from the Australian Army (mean (SD): age = 25(5 y; height = 173(11 cm; mass = 74(12 kg).


Following two familiarisation sessions, subjects participated in experimental sessions with various environmental conditions ranging from a WBGT of 21.2°C to 32.2°C. Each session was conducted at least one week apart and consisted of 15-min seated rest (REST), 45-min treadmill walking (WALK1), 15-min manual load handling (LOAD), a second walk of up to 60 min (WALK2)

and 20-min seated recovery (RECOV). Subjects wore standard army combat uniform and carried a 20-kg backpack during walk phases. T_c was measured from T_{re} , T_{es} , T_{gi} and Tinskin (positioned over spine at T1-T4) at 1-min intervals, and from T'_{ty} at 15-min intervals.

Tinskin showed a more robust relationship with T_{es} ($r=0.68$, $p<0.01$) than with T_{re} ($r=0.64$, $p<0.01$), independent of environmental condition. When separated by environmental condition the associations become stronger with increasing heat stress. For example, Tinskin accounted for only 18% of the variance in T_{es} at 21.2°C WBGT, improving to 42% at 25.9°C and 61% at 29.7°C, and 64% at 32.2°C. When separated by exercise phase, Tinskin predicted T_c poorly during REST (eg. T_{es} : WBGT 32.2°C, $r=0.04$) and LOAD carriage (eg. T_{es} : WBGT 32.2°C, $r=0.4$), even under increased heat stress. However T_{es} and Tinskin associations ranged from moderate to strong during WALK1 ($r=0.67$, $p<0.01$), WALK2 ($r=0.56$, $p<0.01$) and RECOV ($r=0.86$, $p<0.01$). T_{gi} had a better association with T_{re} ($r=0.92$, $p<0.01$) than with T_{es} ($r=0.83$, $p<0.01$), whereas T'_{ty} tended to be a poorer predictor of both T_{re} ($r=0.69$, $p<0.01$) and T_{es} ($r=0.77$, $p<0.01$).

In summary, Tinskin and T'_{ty} represented T_{es} with more confidence than they represented T_{re} , and these associations improved with increasing environmental heat stress. T_{gi} followed T_{re} more closely than it followed T_{es} . Exercise phases where T_c remained relatively constant displayed an uncoupling of Tinskin and T_c s, whereas epochs with increasing or decreasing T_c produced moderate to strong T_c -to-Tinskin dependence. Tinskin was consistently lower than T_{re} (1.3(0.5°C) and T_{es} (0.9(0.4°C), and was

Endorsed projects



influenced by environmental conditions and preceding exercise phases. T_{gi} was generally higher than T_{re} (0.1(0.2°C) and T_{es} (0.5(0.3°C), but was mostly unaffected by exercise and environmental conditions. T_{ty}' was highly affected by ambient conditions, and differentially with exercise phase. T_{gi} (by radio-pill thermometry) generally had a stronger association with standard measures of T_c than did T_{ty}' (by infra-red thermometry) and T_{skin} (over the spine at T1-4), and may therefore be the most accurate of these fieldable indices.

Protocol 156/98 Dental emergencies and work performance.

The role of the operational dental officer in the Australian Defence Force (ADF) has been unchallenged until recent times. Now, largely due to workforce and economic constraints, the need for uniformed dental officers has come under scrutiny. Therefore, it is timely to:

- review dental casualty rates in various operational situations
- examine the nature of these dental casualties and whether they affect the operational capabilities of the deployed force
- Establish that operational (field) dentistry can effectively treat dental casualties and debate whether this is best done by the operational dental officer.

Protocol 182/99 Evaluation of a Salivary Stress Test - laboratory based exercise and environmental Stress Study.

Immunoglobulin - A in Saliva (SIgA) has been proven to be decreased during periods of stress, a change that also

correlates with increase disease risk. Concentration of SIgA is negatively associated with dietary deprivation, negative moods, and anxiety. SIgA was evaluated as a marker of the severity of stress during a 19 day Royal Australian Air Force (RAAF) survival course, during which students experience hunger, thirst boredom, loneliness and extreme heat and cold combined with demanding physical effort. There were 27 men and 2 women who participated. Students kept daily food diaries, from which daily intakes of energy and macronutrients were calculated. Saliva samples were collected on 9 d for the measurement of the ratio of SIgA to albumin (Alb). Students completed a health checklist and the Profile of Mood States on 3 of the days. Dietary restriction, consumption of alcohol, body mass loss, occurrence of upper respiratory tract infection, and negative emotions were negatively associated with SIgA:Alb. SIgA:Alb is a useful marker of the severity of stresses encountered during stressful training.

Protocol 186/99 Nutrition and physiology study exercise Pelopor Finn.

The Nutritional adequacy of both Australian combat ration packs (CRP) and local feeding with fresh foods was evaluated during exercise Pelopor Finn, a 23-day adventure training exercise conducted in Sabah, Malaysia. Thirty-one males (aged 19 to 32 years) from the British 25 Engineer Regiment participated in the Study. Blood samples were collected for determination of nutritional status and a skin immune function test was performed before and after the exercise. Measurement of body mass, recording of food consumption, physical fitness testing, collection of saliva samples (immunoglobulin A) and

testing of psychological status (mood and cognition) occurred immediately before and after and at multiple time points during the study. Mean weight loss was 5.5%, decrements in physical and mental performance were not observed and good immune status was maintained. Food consumption was encouraged by the novelty of new foods, ability to socialise and take meal breaks, ability to self-select food items and number of serves, adequate sleep, good morale, and good hydration status. Although providing sufficient energy and macronutrients, the Australian CRP failed to provide sufficient iron, folic acid, antioxidants and vitamin B6 to prevent decline in storage of these nutrients. Tobacco smoking and alcohol consumption were shown to be detrimental to nutritional status and alcohol may have had a particular negative effect on iron status.

Protocol 193/99 Counter measure to an identified Hazard for ACL rupture in recruits.

In June 1998, 6 unexpected ACL ruptures within 12 months were detected by routine injury surveillance in a cohort of Australian Army recruits. Local Investigation, reported separately as a case report in this journal issue, suggested the cause to be an excessive coefficient of friction between rubber boot-soles and newly-laid, rubber matting on one obstacle course, creating excessive knee torques. The matting was progressively removed, but not before two more ruptures occurred on one remaining section. In this retrospective study, chi-square analyses were used to compare the incidence of ACL rupture in pre-hazard, hazard-exposed and post intervention cohorts, and the average

cost to the institution of each ACL rupture were determined. Zero eight and zero ACL ruptures in the pre-hazard, hazard-exposed and post intervention cohorts, respectively ($\chi^2 > 4.75$ for 1 df, $p < 0.03$ for each change in incidence). The temporal relationship between hazard introduction or removal and changes in the incidence of ACL rupture were strong. The average institutional cost of each ACL rupture was AU\$54627, or US\$34322. Rubber matting on obstacle courses increases the risk of ACL rupture in the presence of speed and rubber-soled footwear. Routine injury surveillance and simple preventive processes save money and personnel.


Protocol 196/99 Evaluation of the Japanese Encephalitis vaccine by dual intra-dermal route of administration.

Japanese encephalitis is a viral disease emergent in Asia and more recently in Australia. In Australia, the mouse-brain derived, inactivated Nakayama strain vaccine is commercially available, though has a significant adverse event profile and is expensive. To address these issues, intradermal vaccination has been assessed as an alternative. Dual intradermal vaccination (0.1ml at two sites) was found to have a slightly more favourable adverse event profile and is less expensive while maintaining comparable serological efficacy.

Protocol 201/99 Nutrition, Physiology and Psychology data capture during Operation Warden.

A study was conducted to investigate the acceptability and service suitability of the Combat Ration One Man (CR1M) to ADF members who participated

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in Operation Warden. Rationing with CR1M as the sole (or major) source of food occurred for up to 40 days at the start of the operation, while ADF members engaged in patrolling in the heat, in mostly rugged terrain, and with moderate-to-high load carriage.

Several of the high carbohydrate ration items were commonly discarded: there is a requirement for more acceptable high-carbohydrate foods to replace those that are no longer popular. Although it is reasonably suitable overall, the vast majority of respondents complained of 'monotony' during the long-term feeding with CR1M. Increasing the range of available menus from five to at least seven, and preferably ten, may lead to enhanced operational performance through increased food intake.

Protocol 204/99

Study to determine the effectiveness of orthotics in the treatment of flat feet in recruits.

Two hundred and thirty RAAF recruits about to undergo ten weeks of basic training consented to join the study. The study consisted of a prospective cohort study where recruits were divided into groups based on their foot shape, and a pilot randomised controlled trial where half of the recruits with flat feet were selected at random, and provided with orthotics. The Arch index measured from the right footprint was used to diagnose foot shape.

The groups were assessed at baseline and week eight. Outcome measures included lower limb pain, training injury, foot health (Foot Health Status Questionnaire) and quality of life (WHOQOL). Potential confounding variables include gender, age, height, weight, BMI, boot comfort score and

initial fitness measure from a 2.4 km run.

Flat feet were not found to be a risk factor for training injury. Flat feet were found to be statistically significantly associated with poorer aerobic fitness, lower limb pain or poorer foot health. Some interesting patterns of outcomes with orthotics use were found, and a larger study of orthotics use with measures to improve compliance is warranted.

Protocol 205/00

Intrinsic risk factors for medial Tibial Stress Syndrome: A prospective study.

This is one of very few prospective studies of Exertional Medial Tibial Pain EMTP in athletic populations. The very high recruitment and retention rate is study strength, as are the use of common, clinically relevant, easily-performed measures that require little equipment, and the blinded protocol for EMTP diagnosis (18). We publish test-retest reliability for all the anthropometric measures but many studies to date have not reported this. The relative consistency of training protocols and footwear inherent in a military setting, as well as the completeness of military and medical records add to the value of this study.

Factors that limit the conclusions we can draw include that extrinsic factors, such as unrecorded additional training, may have influenced our results, but this is a challenging variable to measure accurately with training diaries (29). We noted, however, no significant differences in fitness level changes between groups. Improved technology (e.g. accurate pedometers with automatic data downloads, etc.) will permit this limitation to be addressed more easily in

future studies. The potential multiplicity of pathology, related to our entry criteria, reduces the external validity of our results to specific pathological conditions (e.g. stress fractures). The small number of women compared to men may account for the lack of intrinsic risk factor association in this group. Optimally, a power analysis (not undertaken in our study) of gender would assist planning in future studies. Furthermore, static measures, such as foot type, do not necessarily correlate with dynamic measures (30). Future studies analysing intrinsic risk factors for EMTP in both women and men would include the use of dynamic measures of gait biomechanics (e.g. with kinematics multi-camera biomechanical analysis system). Such studies would require substantial funding for equipment, data collection, and analysis. Finally, we also note that military studies do not immediately generalise to civilian settings.

In summary, in male cadets greater internal and external hip ranges of motion and lower lean calf girth were associated with the clinical syndrome of EMTP. No intrinsic variable was associated with EMTP in women, although future studies with more power are required. For men and women in this military setting, the presentation of exertional medial tibial pain frequently preceded an inability to complete training standards due to ongoing disability, thus placing their occupation at risk.

In conclusion, we found some biomechanical factors were associated with male EMTP presentation in this military setting. However, the increased incidence of EMTP in women, without any identifiable risk factor, requires the attention of military training

organisations. Further research is required to understand why these gender differences exist.

Protocol 208/00 Gulf War Veteran's Health study.

Recruitment for the study concluded in April 2002. In summary, from the original study population of 1871 Gulf War veterans, 1808 were recruitable (ie not reported deceased or overseas for the duration of the summary) Of these 1808 Gulf War veterans, 1456 (80.5%) participated including 1414 (78.2%) who completed both the health assessment and postal questionnaire, and a further 42 (2.3%) who completed the postal questionnaire alone. The total eligible sample of comparison group subjects were 2796 after removal of those reported deceased or overseas. The overall participation rate in the comparison group was 56.8% with 1588 participants. These included 1411 (50.5%) who completed both the health assessment and postal questionnaire and a further 177 (6.3%) who completed the postal questionnaire alone.

From May to December 2002, data analysis was undertaken and the study report written. During this time a cancer and Mortality Study was also completed in accordance with the approval of the State and Territory Cancer registry and the AIHW Ethics Committee. The study report was submitted to the Department of Veterans' Affairs in early 2003 for tabling with the Minister for Veterans' Affairs. The report was publicly released on 25 March 2003. The study is published in Print - Australian Gulf War Veterans' Health Study 2003, volume 1-3 and is available at www.dva.gov.au/media/publicat/2003/gulfwarhs/index.htm.

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Protocol 217/00

Investigation of a method of assessing the performance of load carrying equipment in the Australian Army.

Researchers at the Centre for Allied Health Research, University of South Australia have received international recognition for their work in the assessment and analysis of issues associated with the use of Posterior Load Carrying Systems in the civilian population. This study results from collaboration between the Defence Science and Technology Organisation, Salisbury, South Australia, and the Centre for Allied Health Research, University of South Australia with the aims of developing best practice in measurement of the effects of load carrying systems on the land based soldier.

This report details a six (6) part laboratory based study that developing a testing protocol for the future assessment of load carrying equipment for the land based combat soldier. Ten (10) volunteer subjects were recruited for the Army reserves for participation in this study. Research issues associated with the testing methodology were evaluated prior to the study for a systematic review of the relevant literature, using a hierarchy of evidence levels and quality scoring for critical appraisal. Following testing, a review of issues associated with the testing methodology used in this study was undertaken, and protocols for the future assessment of load carriage equipment proposed.

Protocol 218/00

An investigation of Insecure attachment Style as a risk factor for the development of Post Traumatic Stress Disorder in Military personnel involved in peace keeping duties.

This study examined whether insecure attachment style in adults was associated with increased levels of psychological distress, including posttraumatic Stress Disorder (PTSD). Australian military medical personnel (53 men, 32 women) from three military hospitals completed the Attachment Style Questionnaire, Brief Symptom Inventory and PostTraumatic Stress Checklist - Military. While attachment style was significant for the development of psychological distress after exposure to a traumatic event and overseas deployment, it was not significant in determining symptom severity in PTSD. An unexpected finding was the atypical distribution of attachment styles in the sample as well as a significantly greater frequency of insecure attachment style in those who had been either exposed to a traumatic event. These findings are discussed in terms of the validity of attachment style as a construct as difficulties in measurements can impact upon the findings. Limitations of the research are discussed together with future research recommendations.

Protocol 219/00

The Role of the Military Nurse on Operation Service.

The Role of the Military nurse in Australia is currently without research or definition. Discussion on the Military nurse's role to this point in time have been opinioned based within the culture of military nurses. This project

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explores the multifaceted role of the military nurse by examining their clinical duties within the realm of their military responsibilities whilst serving in an operational environment. Using data derived from the contextual setting, the role of the military nurse in this setting is ultimately defined.

The Project develops a theory of what a military nurse is by using a grounded theory approach. Once a theory is established a research-based definition provides a starting point for ongoing development of their professional needs.

Protocol 220/00

Injury prevention In RAAF fighter pilots: A neck strengthening program for high performance pilots. Changes in Cervical Spine Bone Mineral Density in Response to Flight Training.


High magnitude loads and unusual loading are two important determinants for increasing bone mass. Past research demonstrated that moderate +Gz induced loading, providing both high loads in an unaccustomed manner, had an osteogenic effect on bone. A third determinant of bone mass, is that the bone response to loading is site specific. This study sought to further investigate the bone response to moderate +Gz loading, examining the cervical bone response, the site suspected of experiencing the greatest loading during aerial combat maneuvering. BMD was monitored in 9 RAAF trainee fighter pilots completing an 8 month flight training course on a PC-9 and 10 age-height-weight-matched controls. After 8 months, the pilots had a significant increase in CS BMD and total body BMC. No significant changes

were found for the control group. This study demonstrated that moderate +Gz loading might have contributed to a significant increase in CS BMD in the trainee PC-9 pilots. The increase in bone mass reflected the exposure to short-term, moderate and sometimes sustained accelerative forces causing stress at the cervical spine. It remains to be established if even higher +Gz forces can induce even greater osteogenic effects.

The Effect of Moderate +Gz on the Cervical Muscle Isometric Strength of Trainee Pilots.

External stimulus/loading initiates adaptations within skeletal muscle. Whilst performing flying manoeuvres under +Gz it has been previously found that the cervical area has the highest loading. The first purpose of this study was to examine the neck muscle response to the physical environment associated with flight training, incorporating limited exposure to moderate +Gz force, in a Pilatus PC-9 aircraft. The second purpose was to examine the short-term range of movement (ROM) response to flight training. Isometric cervical muscle strength and ROM was monitored in nine RAAF pilots completing an eight-month flight training course at Pearce Airbase in Western Australia, and in ten controls matched for gender, age, height and weight. Isometric Cervical muscle strength and ROM was measured at baseline and at eight months using the Multi-Cervical Rehabilitation Unit (Hanoun, Canada). Results indicated that an increase in pilot's neck strength was limited to flexion whilst in a neutral position. No strength changes were recorded in any other site in the pilots or for the controls. These findings

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suggest that short-term exposure to the physical environment associated with flight training, incorporating limited exposure to moderate +Gz, had a limited significant effect on increasing isometric cervical muscle strength. No significant changes were observed in the pilot's ROM, indicating that short-term exposure to flight does not effect ROM. However, long term monitoring of ROM in the pilots may be warranted. Due to the lack of natural strength gains in the cervical region, neck strength training outside of the aircraft may be warranted in order to prevent neck injuries whilst flying high performance aircraft.

A Comparison of Training Methods to Increase Neck Muscle Strength.

The high rate of neck injury in the Air Force from pilots exposed to high +Gz force is a major concern in aviation medicine. Strength training of the cervical muscles may be an effective means to increase the neck strength and decrease injury risk. The purpose of this study was to compare the isometric cervical muscle strength response to a ten-week, twice weekly, training program, using either the Multi-cervical unit (MCU) or the dynaband. The cohort consisted of 32 age-height-weight matched subjects, split into three groups, a control group, and group training on the MCU and group training with the dynaband. Pre and post testing was performed on the MCU to measure changes in isometric strength. Comparisons were made using a one way ANOVA ($p < 0.05$) with Scheffe post-hoc comparisons. Effect size between the MCU and dynaband groups were also calculated. The MCU group displayed the greatest increase in isometric strength with increases in flexion of 64.4%, extension 62.9%, left lateral flexion 53.3% and right lateral

flexion 49.1%. The differences were only statistically significant from the control group. Although the strength increases for the dynaband group were somewhat lower than the MCU group, flexion increasing 42.0%, extension 29.9%, left lateral flexion 26.7% and right lateral flexion 24.1%, there was no significant differences between the training groups. There were trends of small differences in strength being found between the two training groups, indicated that the MCU and the dynaband are effective training methods to increase isometric cervical muscle strength and suggested that strengthening programs be integrated into pilots flying high performance aircraft.

Protocol 222/00

Effects of venous Forearm drainage on induced symptoms during the volume provocation test.

The volume provocation test (VPT) has been shown to induce a transitory increase of forearm and hand volume. Although these changes have been quantified in previous studies, the postulated mechanism underlying the VPT required further investigation. This study used a test-retest design in which the VPT was applied to 20 subjects before and during blood donation. During the standard VPT, the experimental arm was cuffed for 4 minutes at 15 mm Hg less than diastolic blood pressure, but a cannula siphoned blood from a superficial forearm vein during blood donation. Subjects rated the level of discomfort for each protocol, and reported data regarding symptom quality and location. Discomfort data during the VPT (1.95/10) was higher (p -tailed < 0.005) than during blood donation (1.1/10), and

subjects reported fewer volume-related symptoms during blood donation. These findings support the hypothesis that the VPT operates through a vascular mechanism, which is milder during blood donation. *J HAND THER.* 2003;16:43-48.

Protocol 226/00

Detection of strongyloides specific antibodies to determine exposure to strongyloides infections, via the enzyme linked immunosorbent assay.

The Enzyme Linked Immunosorbent Assay (ELISA) was evaluated to determine the presence of Strongyloides antibodies in a group of 175 return to Australia (RTA) personnel. Antigen was obtained from third stage larvae of Strongyloides ratti. Sensitivity and specificity of the test is > 85%. 0.5% tested was considered to be antibody positive. 0.5% tested was considered to be positive for a low responding or resolving infection or may reflect serological cross-reaction. The ELISA technique described was found to be useful for strongyloidiasis screening. Further testing of personnel serving in strongyloidid endemic areas needs to be considered.

Protocol 227/00

Evaluation of the Japanese Encephalitis Vaccine - effectiveness and efficiency of intradermal boosting.

On prospective investigation of Japanese encephalitis (JE) immunity decay after vaccination, we found several groups of soldiers without demonstrable neutralising antibodies 1 within the three-year period recommended 2 for boosting. Two such groups, 12 and 18 months post-vaccination were


chosen for boosting with intradermal administration of vaccine. The Australian Defence Health Research Ethics Committee approved the conduct of both trials.

Two cohorts of healthy Australian soldiers (n = 32 & 23) were recruited, as they were seronegative on JE specific, 90% plaque reduction neutralising test (PRNT90) conducted at Westmead Arbovirus Reference Laboratory, Sydney. Consenting subjects were administered 0.1ml JE-VAX™ by intradermal injection in the upper deltoid region. Sera were collected two weeks after for retesting paired with baseline samples.

In the first cohort (one year post-vaccination), all 32 seronegative soldiers developed demonstrable neutralising antibodies (PRNT90, titre > 1:10) two weeks after single intradermal vaccination. In the second cohort (18 months post-vaccination), 22 of 23 seronegative soldiers developed demonstrable neutralising antibodies. The individual from the second cohort not responding to intradermal boosting had also not responded to the initial course of vaccination on various sera samples taken through the preceding 18 months.

The National Health and Medical Research Council in the Australian Immunisation Handbook (7th edition, AGPS, Canberra, 2000:147-153) recommend boosting Nakayama strain, mouse brain derived, inactivated Japanese encephalitis (JE) vaccine three years after initial vaccination with 1ml of vaccine by subcutaneous administration. We have found that two weeks after boosting with 0.1ml intradermal vaccine, 57/58 recipients had developed neutralising antibodies.

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Neutralising antibodies appear to decay early within the first year following vaccination, or do not develop following initial vaccination. Nevertheless, a humoral response does occur to intradermal boosting suggesting an immunological memory is retained following vaccination in the absence of detectable level of neutralising antibody.

The relationship of boosting to protection against JE wild virus is not clear. Seronegative individuals greater than one year after vaccination cannot be considered protected against JE; however, intradermal boosting comprehensively produces known protective levels of antibodies.

Protocol 239/00 To Examine gender and physical training effects on Soldier Physical Competencies and Strain.

The Australian Defence Force (ADF) has endorsed the position of 'The review of the Employment of Women in the ADF' agenda that ADF employment policy is to be competency based. Head Defence Personnel Executive (HDPE) has been tasked to determine the physical standards for the ADF Combat Arms, to the extent necessary to determine whether women should be employed in these work areas. Consistent with these priorities, the Director General Defence Health Service (DGDHS) has tasked the Defence Science & Technology Organisation (DSTO) - with investigating the separate and combined effects of gender, load carriage and thermal environment on soldiers' work performance and strain. This investigation employed an infantry-based task consisting of a 15-km march at 5.5 km/h followed by the Run-Dodge-Jump (RDJ) activity. All soldiers (35 males

and 28 females) carried 34.6 kg, which was based on the requirements for a 3-day operation. While it was evident that some soldiers, particularly the smaller females, would find it difficult to complete this task in sufficient time, due to the physiological demands, a 12-week specialised physical training program was implemented. This training phase was included to establish whether given sufficient physical training, females could complete an infantry-based task at an equivalent level to their male counterparts. Physiological assessments of muscular strength and endurance, and aerobic and anaerobic capacities were performed before and after the 12-week physical training program to ascertain the effectiveness of the program.

Before the specialised physical training was implemented males exhibited greater muscular strength and endurance, and aerobic and anaerobic capacities compared to females. All males could complete the RDJ in a rested state, prior to the march, whereas the majority of females (57%) could not complete the RDJ with weapon and webbing. The majority of males (91%) completed the 15-km in 165 min, whereas fewer females could complete the march successfully (36%). All infantry soldiers and the majority of combat-corps soldiers (79%) could complete the post-march RDJ in less than 70 sec, whereas the fastest female required 73 sec to complete the course.

The specialised physical training improved strength and aerobic capacity for the female group and strength only for the male group, although the between gender differences remained. However, these improvements did not translate to enhanced power, muscular endurance and anaerobic capacity. Furthermore, the Specialised

Training Group (STG) males and females exhibit small, if any, improvements in the infantry-based task, i.e. no female could pass the 70-sec RDJ barrier. In fact some soldiers exhibited decrements in CFA performance. One STG female completed the post-march RDJ in 73 sec, while another control female achieved an RDJ time of 65 sec after the physical training period. Therefore it is likely that a small number of female soldiers are physically able to complete this assessment at the same performance level as current infantry soldiers. The elevated environmental heat stress encountered during the post- specialised physical training CFA potentially masked any potential benefits gained from the physical training program.

A number of limitations need to be considered when interpreting the data pertaining to the specialised physical training; injury-illness (15%), reposting (9%) and deployment (76%) dramatically reduced the subject groups from 20 to 6 for STG females, 8 to 2 for control females, 21 to 9 for STG males and 15 to 4 for control males. Environmental conditions were significantly different between the pre- and post-specialised physical training assessments (WBGT: 19°C vs. 26°C). Most soldiers were in a relatively de-trained physical fitness status at the time of the initial assessment due to Tandem Thrust. Subsequently, the improvement of the control female was likely a result of her own personal physical training regimen being reinitiated after the operation exercise.

CFA administration should be planned for the cooler less humid months to diminish the likelihood of thermal injuries, which appears to be the current general practise at 1 Bde. If the CFA is conducted in hotter and more humid conditions, longer completion times


(allowing rest periods), reduced distance and lighter loads should be considered. Prevailing injuries and illnesses need to be critically reviewed prior to conducting a CFA or commencing operations or training. Further consideration is necessary to optimise current physical training structure, with respect to general physical fitness and trade-specific physical fitness. While it is recommended that a sufficient physical training program be implemented prior to the CFA, this rationale is contrary to the proviso that all soldiers should be able to achieve a minimum standard, which can be randomly assessed at any time. Issues relating to current CFA policy are discussed in Annex G, which includes rationale for implementing revised 2.4-km BFA times as a screening tool prior to CFA administration. The inclusion of shooting and RDJ components at the end of the 15-km is recommended for high readiness infantry and associated trades. The inclusion for all soldiers in a mandatory CFA requires further deliberation.

Protocol 244/01

Optimising health care delivery in the ACT: A trial of Nurse Practitioner services.

Funded by Nurses Board of the ACT and ACT Department of Health and Community Care. The nurse practitioner has been a focus of interest from health departments in Australia since 1990. A significant amount of data and information relating to the efficacy of this role has accumulated to inform the implementation of this level of service into the health care industry. The ACT has demonstrated an interest in, and commitment to, a rigorous examination of the potential for a role for the nurse practitioner in the ACT health service system.

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The ACT Nurse Practitioner Trial comprised an empirical investigation into the nurse practitioner level of service as part of the ongoing ACT Nurse Practitioner Project. The trial was conducted over a ten month period and collected generic and model-specific data on four models of nurse practitioner service: sexual health, wound care, mental health liaison-consultation, and military nursing.

The final report of the project was submitted to the Minister for Health in September 2002. Recommendations from the report have informed legislative change to enable further development of the nurse practitioner level of health service in the ACT. The title 'nurse practitioner' is now protected under the ACT Nurses Act 1988, and a Master of Nursing, Nurse Practitioner program is now being offered at the University of Canberra, with a curriculum based on findings from the trial.

For further information on the ACT Nurse Practitioner Project, the ACT Nurse Practitioner Trial, and the four models of nurse practitioner service, go to <http://www.health.act.gov.au/nursepractitioner/index.html>

Protocol 245/01 Evaluation of the User Acceptability of a New Repellent by Soldiers

Personal protection measures are the first line of defense against mosquito-borne diseases, such as malaria and dengue.

The main active ingredient in mosquito repellents is N, N-diethyl-3-methylbenzamide (Deet). Deet has a broad spectrum of effectiveness against a variety of arthropods, including mosquitoes.

There is little risk of adverse effects due to the use of Deet. However, it is recommended that the chemical be used appropriately and not excessively for prolonged periods.

The Australian Defence Force has a repellent formulation containing 35% Deet in a gel. This formulation is effective against mosquitoes, but is not used widely by soldiers, primarily because it feels sticky and uncomfortable on the skin and melts plastic and some synthetic fibres. Many soldiers prefer commercially available spray-on repellents.

There are relatively few alternatives to Deet. New active ingredients, such as Picaridin and the Piperidine AI3-37220, are being evaluated and may prove to be equally effective in providing a broad spectrum of activity against mosquitoes.

Protocol 253/01 Cognitive and Psychomotor effects of Bacopa Monniera (BRAHMI) and Ginko Biloba extract.

While Ayurvedic medicine has claimed a cognitive enhancing effect of Bacopa monniera for centuries, there is still a need for double-blind placebo-controlled clinical trials. The current study provides support for the two published studies reporting cognitive enhancing effects in healthy humans of a Keen Mind™ Bacopa monniera extract. One hundred and seven healthy participants were recruited for this double-blind placebo-controlled independent group design investigation. Participants were randomly allocated to treatment groups (Keen Mind™ Bacopa monniera: n=55; Placebo: n=52). Sixty-two participants completed the study with 80% treatment compliance. Neuropsychological testing using the Cognitive Drug Research

(CDR) battery of tests was conducted at baseline and 90-days post-treatment with Keen Mind™ Bacopa monniera or placebo. Keen Mind™ Bacopa monniera significantly reduced information processing false alarms, improved spatial working memory accuracy, logical reasoning accuracy, simple reaction time and numeric working memory speed. Interestingly, the placebo group showed significantly more improvement than the Keen Mind™ Bacopa monniera group in the digit symbol substitution test and picture recognition accuracy. The results of the current study provide additional support for the mounting evidence of the utility of Keen Mind™ Bacopa monniera in improving cognitive functioning in healthy human participants. Further studies are required to ascertain the effective dosage range, time required to attain therapeutic levels and the magnitude of effects over a longer term of administration.


Protocol 262/01

Use of cooling-vests on operators within the chubby train: Meerkat (MDV) operators, Husky (MDTV) operators and Sapper/Prodders.

Introduction: Increased core temperature and cardiovascular strain appear to be the major limiting factors to performance during exercise in the heat. The premise of our research is that the strain experienced by the cardiovascular system may have a more important role in the adaptive responses to exercise in the heat than is generally accepted. Another important but poorly understood aspect of heat acclimation is its rate of decay; both physiological and performance-related. The purpose of this research is to provide new information regarding short-term, heat acclimation regimes by focussing

on the nature of the stimulus for adaptation, and on the time course of decay of adaptations. This information should be useful for the preparation of military personnel, civilians and athletes before relocation to hot and humid environments. It was hypothesised that (1) controlled dehydration during the acclimation process would enhance the upregulation of blood volume(s) and of exercise performance in the heat, and (2) the adaptations that are most rapidly induced during acclimation will also be most rapidly lost following cessation of an acclimation regime. Methods: In study one, ten males were heat acclimated for five consecutive days on each of two occasions, in a cross-over fashion, with a five-week washout between acclimations. One acclimation was completed with full-fluid replenishment (EUH) during each daily acclimation bout, and one with no fluid intake (DEH). Participants' thermoregulatory, cardiovascular and fluid-regulatory status was measured at baseline and in response to a standardised, 90-min exercising heat stress test, both before and after each acclimation regime. The heat stress test concluded with an exercise performance test to volitional exhaustion. In study two, the same participants undertook the same exercising heat stress test at weekly intervals, for three weeks, following acclimation, to examine the rate of decay of each measure. Key Results: Exercise time to exhaustion was improved by EUH (~14%; $p=0.00$), but was increased to a greater ($p=0.02$) extent by DEH (~18%; $p=0.00$). Similarly DEH conferred reductions in end-of-exercise heart rate (19 ± 4 bpm; $p=0.00$) and core temperature ($0.43 \pm 0.14^\circ\text{C}$; $p=0.01$) which were generally greater than those of EUH were: 10 ± 3 bpm ($p=0.00$) and $0.28 \pm 0.14^\circ\text{C}$ ($p=0.08$).

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Resting plasma volume was increased by acclimation for DEH ($10.3 \pm 3.5\%$; $p=0.21$) but not clearly for EUH (5.5 ± 3.6 ; $p=0.21$). The acclimation-induced reductions in exercising heart rate and core temperature were still fully evident one week later ($p<0.05$), but both had dissipated by two weeks, as had the improvement in exercise time to exhaustion. Provisional Conclusions: First, physiological and performance-related adaptations were clearly apparent in response to a short-term (5-day) heat acclimation regime. Second, the nature of those adaptations was to permit increased heat loss rather than to lower resting body temperature. Third, the adaptations were generally more pronounced - and sometimes only occurred - when acclimation bouts were undertaken with permissive dehydration, hence supporting hypothesis one. Fourth, the acclimation-induced increase in work capacity was retained for one week only following cessation of acclimation, and its decay rate was consistent with those of heart rate and core temperature but not plasma volume. These results may also indicate that cardiovascular-related benefits may not be accounted for by hyper-volaemic responses per se.

Protocol 277/01 Pilot investigation of the Ruggedized Advanced Pathogen Identification Device (R.A.P.I.D) for Dengue detection in East Timor.

Polymerase chain reaction (PCR) assays for detection of vector transmitted virus infections in humans designed for conventional Pcr thermal cyclers were modified for real-time PCR using a LightCycler. Two reporter fluorochromes, the double stranded DNA specific dye SYBR Green I, and 6-hydroxy flourescein

conjugated to TaqMan(DNA probes, were employed to detect positive reactions. Following optimisation of the assays for real-time PCR, portable real time PCR equipment, the Ruggedized Advanced Pathogen Detection Device (R.A.P.I.D.), was deployed to East Timor and field trial was conducted from November 2001 until January 2002. Blood samples from a total of 143 army personnel were screened with the R.A.P.I.D' for virus infections. These included 33 samples from patients showing clinical symptoms. Results obtained with the R.A.P.I.D' were compared to results from serological testing and cell culture analysis.

Protocol 315/02 Combat Ration pack Components for promotion of Bowel Health.

Members of two teams rafting down the Franklin river during early December 2002 (9th to 23rd) participated in a pilot study of bowel health. Dietary intake and changes in body composition of the soldiers were measured. Crews received a novel food ingredient, called inulin, which has been shown in previous research to boost immune function and improve bowel health. Novel molecular techniques used to monitor bowel health by researchers at CSIRO in Adelaide included genetic typing of microflora and determination of short-chain fatty acids in faecal samples. The menu of fresh foods eaten by the crewmembers was found to provide the recommended military dietary intake of nutrients and was adequate to prevent changes in body composition. The Inulin supplement was well accepted by the crew members for texture, ease of preparation, flavour and lack of bowel discomfort. Markers of Bowel health (short chain fatty acids, pH, faecal

moistures) were within normal healthy ranges. There was a significant increase in the short chain acid content of faeces by the end of the rafting expedition, which may suggest improved bowel health. Some interesting and unexpected findings were that diarrhoeal episodes during the rafting expedition were apparently not due to infection with the most likely bacterium-enterotoxigenic E.coli and there appeared to be a reduction in bacterial numbers of lactobacilli and Escherichia coli - a finding which

contrasts with some published studies of inulin supplementation. Importantly this pilot study proved the value of new faecal sample collection methods. Data collected during the study suggest changes in indices of bowel health during adventure training and support the case for more comprehensive and well controlled dietary intervention trials with military personnel.

Protocol Status as at 30 June 2003

The status of all ADHREC Protocols as at 30 June 2003 is tabulated below. A total of 338 protocols are listed with ADHREC, 58 are currently in progress and 8 are pending further action from the researcher before ethical approval to undertake the research is granted.

Status	Status of New Protocol 2003	Total Status of protocols Listed with ADHREC for 2003	Active	Inactive
In Progress	24	58	58	
Pending	1	8	8	
Approval Withdrawn	0	10		10
Completed	2	128		128
Finalised	1	60		60
Withdrawn	5	55		55
Not Approved	2	19		19
Total	35	338	66	272

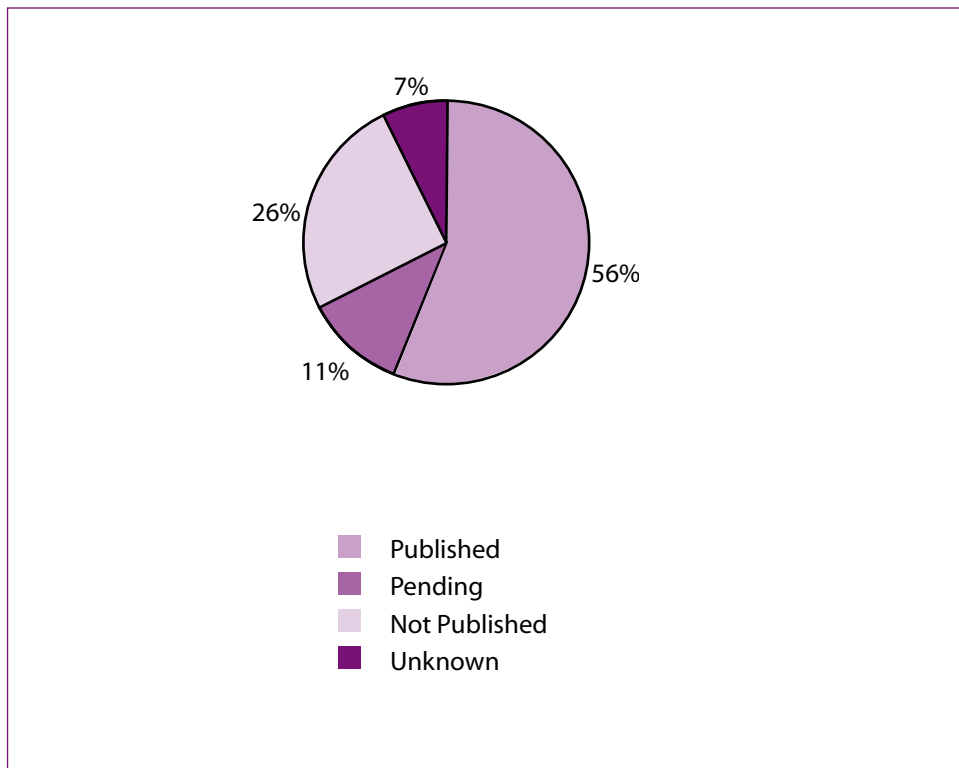
Endorsed projects

Publication of complete research

It is a condition of ADHREC approval that the researchers intend to publish the results in an accessible medium, except where security implications prevent this. Research can be published in a number of formats: as a Masters thesis or Doctoral dissertation, in various medical and scientific journals, in technical reports, or as part of a presentation or poster at a seminar or conference.

The graph below represents the proportions of completed research projects that have been published. Of the protocols registered with ADHREC that have been completed, 56% have been published or are in the process of being published.

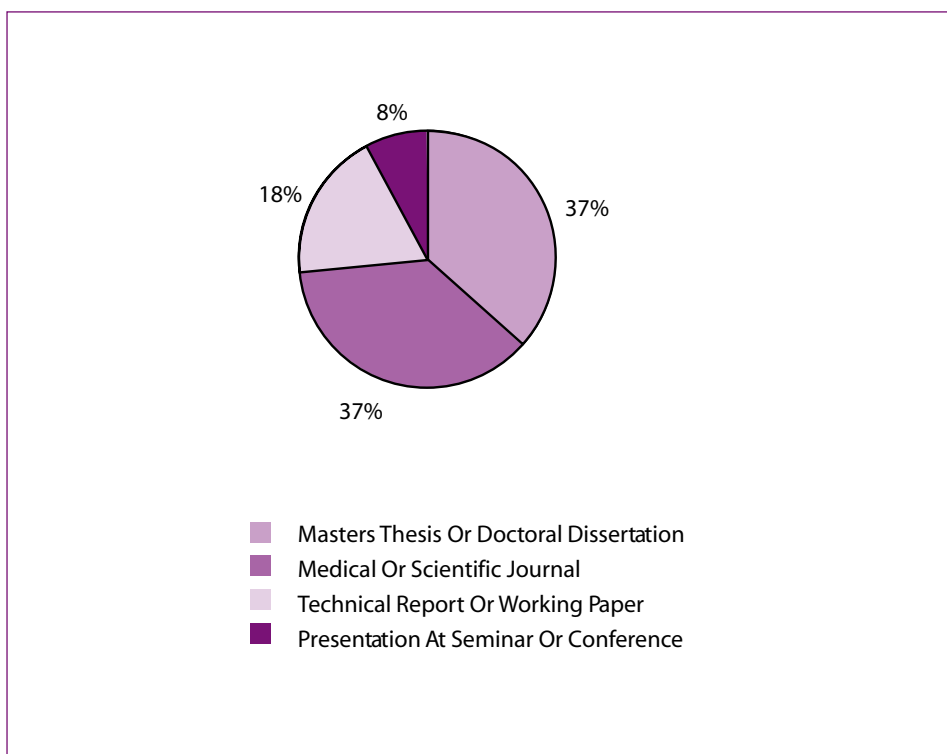
Publication Status of Completed Protocols



Publication

The next graph provides a break down of the media in which this research has been published.

Publication Media for Completed ADHREC Protocols



Journals in which ADHREC cleared research has been published include, but are not limited to, the following:

- Australian and New Zealand Journal of Surgery
- Aviation, Space and Environmental Medicine Journal
- Journal of Applied Physiology
- Journal of Clinical Infectious Diseases
- Journal of Hand Therapy
- Journal of Medical Entomology
- Medical Journal of Australia
- Military Medicine (USA)

Publication



Activities & Initiatives

Draft of a new Australian Defence Force Publication (ADFP) -
ADFP 1.2.5.3 - Health and Human Performance Research in the Australian
Defence organisation Manual for researchers

In response to the need to appropriately manage Health and Human Performance research within the Australian Defence Organisation (ADO), the Defence Health and Human Performance Committee (DHHPRC) was developed to oversee and manage this body of research. The DHHPRC, through the development and publication of the annual Health and Human Performance Research Master Plan, identifies and prioritises the areas of Health and Human performance of greatest concern to the ADF in achieving its strategic goals.

Together, ADHREC and the DHHPRC coordinate and monitor aspects of health and human performance research in the ADO. All health and human performance research requires endorsement from the DHHPRC prior to being considered for approval by ADHREC. The functioning of both committees is closely related, and an ADFP detailing their role is being drafted. The component on the role and function of ADHREC has been taken from the ADHREC Researcher's Guidelines that was drafted during 1999 and 2000. The ADFP details the requirements of researchers when submitting protocols for endorsement from DHHPRC, ethical approval from ADHREC, or both. It provides guidance on when to seek ADHREC approval, detailing the scope of ADHREC's charter. The ADFP was published in early 2003.

Participation in Australian Health Ethics Committee (AHEC) Workshops

In April 2003 the Executive Secretary and Assistant Executive Secretary attended an Ethics in Human Research conference over three days conducted by the National Health and Medical Research Council. The conference provided a national forum for all attendees to discuss issues in the ethical conduct of research by Human research Ethics Committees (HRECs). These issues are becoming increasingly important as the human research field itself grows in volume and complexity, and as the public becomes more aware of and involved in ethical decision in research.

Audit of Research

In 1999, the Committee decided to conduct audits of researchers' files and practices, as an additional means of facilitating and improving ADHREC's monitoring of Defence research. This has become a regular activity of ADHREC.

During 2001/2002, the ADHREC Secretariat conducted two audits of ADHREC approved research protocols. These audits were undertaken to assess the following areas of research compliance:

- Currency of progress reports.
- Security of documents.
- Consent forms - using approved forms, signed by all volunteers.

- Nominal Role (if required).
- Date of first data collection - with one year of ADHREC approval.
- Protocol Variations - ensure that the protocol been used has been approved by ADHREC.
- Serious Adverse Event reporting.
- Any other concerns (of the researcher/s).
- Any withdrawal by participants.
- Contact details of the researcher/s.

The use of audits to monitor ADHREC approved research has proven to be most beneficial in clarifying with researchers what is required of them as part of ADHREC approval. ADHREC will continue to conduct audits of approved research as standard monitoring procedure, ensuring the continued compliance of Defence research with the NHMRC guidelines.

In 2002/2003 no audits were conducted due to the lack of available funds.



Major Researchers in Defence

Major researchers within Defence who have had protocols considered by ADHREC include:

Army Malaria Institute (AMI)

Areas of research include prevention and treatment of vector borne disease through pharmacological agents (e.g. medications - both vaccines and oral medicines, and insect repellents) or physical means (e.g. bed nets, protective clothing).

Submarine and Underwater Medicine Unit (SUMU)

Areas of research include prevention and treatment of decompression illness (the 'bends'), evaluation of equipment and validity of diving tables.

Royal Australian Air Force Institute of Aviation Medicine (RAAF AVMED)

Both AVMED and individuals with an interest in Aviation Medicine have studied various effects of hypoxia (diminished availability of oxygen to body tissues) and gravitational forces (+Gz) on aircrew, their physiology and performance.

Defence Science and Technology Organisation (DSTO)

Various departments within DSTO have been researching the physiological responses of soldiers under different climatic and work conditions, evaluating equipment for use in the field and investigating options for optimum nutrition of soldiers.

Psychology Research Group (PRG) and the Directorate of Strategic Personnel Planning and Research (DSPPR)

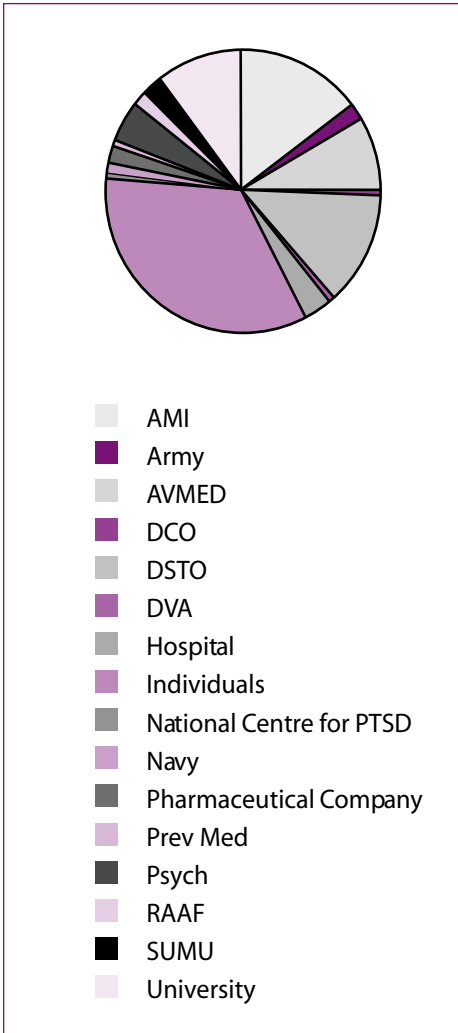
PRG's main tasks comprise the assessment of the human factors of the ADO, the development of selection techniques, e.g: psychometric or aptitude tests, and the evaluation of the utility and validity of psychological tests. PRG also acts as a consultant to other areas of the ADO on matters of selection, training and retention of staff.

DSPPR provides the Defence Organisation with a consolidated personnel research capability to support strategic work force planning and strategic personnel planning. DSPPR also provides advice and assistance in relation to the evaluation of personnel management policies and practices.

Other

The majority of other researchers have been individuals completing Masters theses or Doctoral dissertations, and practising clinicians or epidemiologists with a special interest in the area researched. All research involving ADF personnel, as either researchers or subjects, that is brought forward for consideration by ADHREC must have some benefit to the ADF. The development and management of the Defence Health and Human Performance Master Plan makes this benefit more transparent.

Researchers Registered with ADHREC

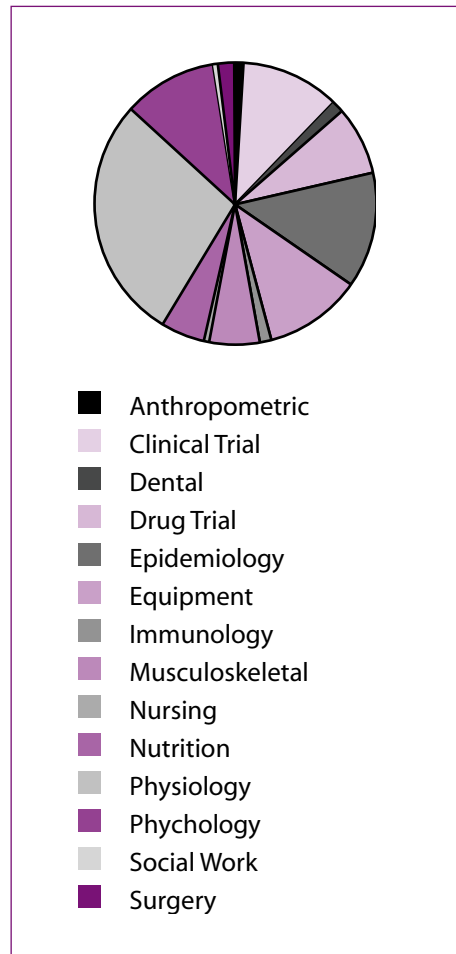


This graph displays the various organisations that have conducted research monitored by ADHREC. Individuals conducting research for their Masters thesis or Doctoral dissertation form the largest group, followed closely by the Defence Science and Technology Organisation (DSTO) and the Army Malaria Institute (AMI). The next largest groups are researchers affiliated with Australian university departments and

the RAAF Aviation Medicine Unit at RAAF Base Edinburgh, South Australia. To date, lesser amounts of research have been conducted by a variety of organisations, including other RAAF units, pharmaceutical companies, hospitals, the Department of Veterans Affairs (DVA), the Defence Community Organisation (DCO) and the Defence Material Organisation.

An indication of the areas being researched in Defence is given in the graph below.

Areas of Research in Defence



Major Researchers



ADHREC's Approach to Research Protocols

ADHREC's primary function is to assess all submitted protocols to determine whether that research is ethical. ADHREC applies the Privacy Principles to each protocol. The Committee pays particular attention to the issues of informed consent, quantification of risk, voluntary participation and that there be no detriment to the careers or medical care of volunteers whether they choose to participate or withdraw from the project. There are a number of reasons why a protocol may not be approved.

ADHREC does not grant retrospective ethics approval. The Committee is also reluctant to allow ADF personnel to participate in the collection of safety data for new drugs (pharmaceuticals) or participate in drug trials where there is no clear benefit to the individual or to the ADF. The Committee also does not approve protocols which have an inadequate study design, would not produce scientifically valid results, or projects that are likely to have adverse outcomes to the volunteers or their

military careers. Similarly, where a researcher requests access to records maintained by the ADF (e.g. medical documents), ADHREC pays particular attention to the Section 95 of the Privacy Act 1988.

If ADHREC determines that the benefit of the research does not outweigh privacy considerations, then the protocol will not be approved. Australian Defence Force personnel are in a unique position of receiving and following orders and as such they can be considered a 'captive audience'. ADHREC is very sensitive to the relationship and importance of the functioning of the commanding officer, and the responsibilities associated with both duty and command. ADHREC balances this relationship with its awareness of the defence population being a potentially 'captive audience', and the potential this has for impacting on research in the ADO environment. ADHREC recognises the operational imperative of the ADF to conduct health surveillance and assessment of efficacy of health protocols in an operational environment.

Researchers
Major

Future Activities

Australian Defence Human Research Ethics Committee

Number of Meetings

ADHREC has increased the number of meetings from four meetings in 1999 to five meetings in 2001 and 2002. The number of meetings has been further increased to six in 2003, with the growth of research conducted by and for the ADF and the Australian Defence Organisation (ADO).

Researcher Audits

The Committee plans to conduct further audits of protocols it approves. Auditing facilitates and improves ADHREC's monitoring of Defence research, in accordance with NHMRC guidelines.

Compliance with the National Statement on Ethical Conduct in Research Involving Humans - National Health and Medical Research Council (NHMRC)

In 1999, the NHMRC issued the 'National Statement on Ethical Conduct in Research Involving Humans' (the National Statement) made in accordance with the National Health and Medical Research Council Act 1992.

The National Statement combined a number of previously separately published documents, outlining comprehensively the membership and operations of HRECs, guidelines on the storage, handling and privacy

of information held by HRECs, and on various components of health and medical research. It provides guidelines about maintaining the privacy and confidentiality of personal information or material of research participants.

ADHREC has been formed in accordance with the National Statement, and functions in-compliance with the guidelines. ADHREC will continue to maintain its resolve to maintain compliance with the National Statement, ensuring that ADHREC undertakes best-practice ethical review. ADHREC has developed mechanisms for receiving complaints or comments regarding both the considerations and conduct of the committee. ADHREC will continue to strive to ensure the continued compliance to the National Statement.

Future Activities

Structure as at June 2003

Australian Defence Human Research Ethics Committee

Membership Appointment	Description	Name	Apppointment Tenure
The Chair	Surgeon General Australian Defence Force SGADF	Air Vice-Marshal B Short	N/A
Member	A laywoman not associated with the ADF	Mrs E Grant, AM	7 Dec 1988-May 2006
Member	A layman not associated with the ADF	Mr David Dillon	7 Dec 1988-May 2007
Member	A minister of religion	Monsignor Max Davis, AM	22 Sep 1993-May 2005
Member	A lawyer (nomination from the retiring member)	Chief Justice T Higgins	23 Feb 1993-May 2008
Member	A member with knowledge of, and current experience in, the areas of research that are regularly considered by ADHREC	Doctor A. Twomey	1 Jan 2000-Jan 2005
Member	A member with knowledge of, and current experience in, the professional care, counselling or treatment of people	Professor John Pearn, AM	1 Jan 2001-Jan 2006
Member	A health graduate from Defence (One of two, one of who is to be a medical graduate).	Colonel P Warfe, CSC	1 Dec 1998-Dec 2006
Member	A health graduate from Defence	LTCOL Vicki Ross	25 Nov 2002-Nov 2007
Secretary	A staff officer nominated by DGDHS	Dr Rosemary Landy	N/A
Assistant Executive Secretary	A staff officer nominated by DGDHS	Mrs Kerrie Broderick	N/A
Minute Secretary	A staff officer nominated by DGDHS	Mrs Sue Turner	N/A

Structure

Attendances 2001/2002

Australian Defence Human Research Ethics Committee

Monday August 12 2002 at 1630 hours

Present:

Air Vice-Marshal Bruce H. Short, RFD
Doctor Rosemary A. Landy
Ms Kate Lloyd
Major Suzanne M. Turner

Chair
Executive Secretary
Assistant Executive Secretary
Minute Secretary

Professor John H. Pearn, AM, RFD
Doctor Alan Twomey
Monsignor Max Davis, AM
Colonel Peter G. Warfe, CSC
The Honourable Justice Terence Higgins

Member

Apologies:

Mr David Dillon
Mrs Elizabeth Grant, AM

Invited guests:

Lieutenant Colonel Vicki Ross
Wing Commander John Hatfield

ADHREC Member Elect
Staff Officer Grade One Health and
Human Performance Research.

Monday 25 November 2002 at 1630 hours

Present:

Air Vice-Marshal Bruce H. Short, RFD
Doctor Rosemary A. Landy
Ms Kate Lloyd
Ms Kerrie Broderick
Major Suzanne M. Turner

Chair
Executive Secretary
Outgoing Assistant Executive Secretary
Incoming Assistant Executive Secretary
Minute Secretary

Mr David Dillon
Mrs Elizabeth Grant, AM
Doctor Alan Twomey
Lieutenant Colonel Vicki Ross
Monsignor Max Davis, AM
Colonel Peter G. Warfe, CSC
The Honourable Justice Terence Higgins

Member

Apologies:

Professor John H. Pearn, AM, RFD

Invited guests:

Captain Jenny Graham, RAN
Group Captain James Ross

Director Defence Force Nursing
Director Health Projects

Attendances



Monday 17 February 2003 at 1630 hours

Present:

Air Vice-Marshal Bruce H. Short, RFD
Doctor Rosemary A. Landy
Ms Kerrie Broderick
Major Suzanne M. Turner

Chair
Executive Secretary
Assistant Executive Secretary
Minute Secretary

Professor John H. Pearn, AM, RFD
Mr David Dillon
Mrs Elizabeth Grant, AM
Doctor Alan Twomey
Lieutenant Colonel Vicki Ross
Monsignor Max Davis, AM
Colonel Peter G. Warfe, CSC
The Honorable Chief Justice Terence Higgins

Member

Invited guests:

Commodore Graeme Shirtley RANR

Wing Commander John Hatfield

Assistant Surgeon General Australian Defence
Force - Royal Australian Navy
Staff Officer Grade One Health and Human
Performance Research, Defence Health
Service Branch

Monday 7 April 2003 at 1630 hours

Present:

Air Vice-Marshal Bruce H. Short, RFD
Doctor Rosemary A. Landy
Ms Kerrie Broderick
Major Suzanne M. Turner

Chair
Executive Secretary
Assistant Executive Secretary
Minute Secretary

Professor John H. Pearn, AM, RFD
Mr David Dillon
Mrs Elizabeth Grant, AM
Doctor Alan Twomey
Lieutenant Colonel Vicki Ross
Monsignor Max Davis, AM
Colonel Peter G. Warfe, CSC
The Honorable Chief Justice Terence Higgins

Member

Permanent Observer:

Wing Commander John Hatfield

Staff Officer Grade One Health and Human
Performance Research, Defence Health
Service Branch

Attendances

Monday 16 June 2003 at 1630 hours

Present:

Air Vice-Marshal Bruce H. Short, RFD
 Doctor Rosemary A. Landy
 Ms Kerrie Broderick
 Major Suzanne M. Turner

Chair
 Executive Secretary
 Assistant Executive Secretary
 Minute Secretary

Professor John H. Pearn, AM, RFD
 Mr David Dillon
 Mrs Elizabeth Grant, AM
 Doctor Alan Twomey
 Lieutenant Colonel Vicki Ross
 Monsignor Max Davis, AM
 Colonel Peter G. Warfe, CSC
 The Honorable Chief Justice Terence Higgins

Member

Apologies:

Wing Commander John Hatfield

Staff Officer Grade One Health and Human
 Performance Research, Defence Health
 Service Branch

Invited guests:

Brigadier Brian Pezzutti, RFD

Assistant Surgeon General Australian Defence
 Force - Army
 Director Clinical Policy - Defence Health
 Service Branch

Colonel Glenn Wells

Expenses 2002/2003

Australian Defence Human Research Ethics Committee

Meeting	Aug	Nov	Feb	Apr	Jun	Total
AVM Short	740.90	795.00	778.07	657.73	654.04	3625.74
Mr Dillon		250.00	250.00	250.00	250.00	1000.00
Mrs Grant		250.00	250.00	250.00	250.00	1000.00
Monsignor Davis	250.00	250.00	250.00	250.00	250.00	1250.00
Chief Justice Higgins	250.00	250.00	250.00	250.00	250.00	1250.00
Professor Pearn Travel	923.47		668.00	829.47	543.40	2964.34
Refreshments	99.00	99.00	100.00	99.00	108.00	505.00
Monash Bioethics Review			71.50			71.50
2003 Annual Report			3795.00			3795.00
NHMRC Conference				820.00		820.00
Total	2263.37	1894.00	6412.57	3406.20	2305.44	16281.58



Contacts/Information

Australian Defence Human Research Ethics Committee

Contact Details

Contact details for ADHREC are as follows:

Executive Secretary
Australian Defence Human Research Ethics Committee
CP2 - 7 - 68
Department of Defence
CANBERRA ACT 2600

Phone: 02 62663807
Fax: 02 62664982
E-mail: ADHREC@defence.gov.au

More Information

The Defence Health Service Branch Defence Intranet web site can be accessed at <http://defweb2.cbr.defence.gov.au/dpedhs> where there are links to ADHREC. At this site, the ADHREC Researchers Guidelines, ADHREC's Guidelines for Volunteers as well as information on all the committee members can be accessed.

DHSB has developed an inter-net site at www.defence.gov.au/dpe/dhs. Go to quick click box click on Research then on ADHREC. This site shows the history of ADHREC, it's members and the steps required to fill out and submit an application.

Contacts