AUSTRALIAN MILITARY MEDICINE

June 1992

Volume 1 Number 2

"Facsimile Edition"

A facsimile copy of the official newsletter of the Australian Military Medicine Association

Australian Military Medicine Association Newsletter
Volume 1 Number 2
June 1992

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1995 Office Holders

Patron:	Major-General D.G. Rossi, AO RAAMC, Surgeon General, Australian Defence Force
President:	Dr Nader Abou-Seif
Secretary:	Dr Marcus Skinner
Journal Editor:	Surgeon Commander Russell Schedlich RAN
Assistant Editor:	Lieutenant Commander Andrew Robertson RAN

This is a facsimile edition, printed in a limited number of 10 copies, of the Australian Military Medicine Association Newsletter as originally published.

The original Newsletter editor was Major Mark Slatyer RAAMC, the current journal editor assuming the role for the March 1993 edition.

Australian Military Medicine Association

AMMA Newsletter Volume One / Number Two / June 1992

First AMMA Conference Arrangements Finalised

The arrangements for the inaugural AMMA conference are now being finalised. The event will consist of the first Annual General Meeting and the National Conference. Dr Nader Abou - Seif who is conference co-ordinator told the newsletter the conference will take place in Melbourne 8 - 9 August 1992 inclusive. The venue is St. Frances Xavier Cabrini Hospital, Malvern, Victoria. There will be a dinner on the evening of 7 August prior to the conference. The conference objective will be to raise awareness of Military Medicine as a discipline. It is hoped that delegates will gain a better appreciation of the historical perspective and current trends in Military Medicine. The meeting promises to provide an opportunity to exchange ideas with colleagues from a number of disciplines. This first scientific meeting will provide a sound basis from which to expand AMMA and its membership base .There is an application form for the conference on the last page of this newsletter with the proposed scientific programme attached.

Council Election Results

The council elections resulted in the election of the following office bearers:

Council Position	Name	Work Phone	Home Phone
President	SqnLdr James Ross	08 2562266	08 3330526
Vice President	Dr Nader Abou-Seif	03 7496777	-
Secretary	SqnLdr Marcus Skinner	07 2802520	-
Treasurer	LCdr Chris Maron	07 9600442	02 8100385
Newsletter	Maj Mark Slatyer	09 3830639	09 3831880
A.C.T. Liaison	Cdr Tim Dillon	06 2663878	-
Member	LCdr Andrew Robertson	06 2663878	-
Member	LCdr Russell Schedlick	02 9600296	-

Notice of Annual General Meeting

The first Annual General Meeting of AMMA will be held at the main lecture theatre of Cabrini Hospital, Caulfield, Melbourne at 0830 hours on Saturday 8 August 1992. All members are requested to place any issue for inclusion on the agenda. All items should reach the Secretary Marcus Skinner no later than 8 July 1992.

The President's Message

Research in Military Medicine

A goal of the association is to foster research in the field of military medicine. In developing the concept of AMMA I was aware of the lack of research opportunities for most health practitioners associated with the military. There are, of course, the Army Malarial Research Unit, the Institute of Aviation Medicine and the School of Underwater Medicine, but these opportunities are limited to only a few personnel. This often excludes completely whole groups such as nurses, dentists, pharmacists, administrators, environmental health officers, radiographers, physiotherapists, scientific officers, psychiatrists, dietitians, podiatrists and more could have desire to conduct research. There are no specific outlets for these people.

The military environment can be an ideal venue for quality research. The military community offers a highly structured, orderly and stable population in which to undertake research. Personnel are often positively disposed to assisting in research projects and the community is generally more familiar with the common aims and objectives that military research is usually oriented than other populations within our society. It is unfortunate that there is little pro-active support for medical research in the military community. This is largely because there is no dedicated vote for research : anything done has to be at no cost to the defence force. Thus, the inevitable costs of research must come from the researchers themselves or the investigator will have to submit herself to the torturous process of securing grants from the NH & MRC, government agencies or private sources. The lack of a research ethos in the Australian military mitigates against individual initiative: there are a few positive examples for others to follow.

The AMMA can help in several ways. Firstly, it will provide an audience for future research work, through the newsletter and conferences. Second, the association will reward excellence in research with the award of a medal and some monetary support towards attending a further conference for the best original research paper at the annual conference. Third, it will, help alter the perceptions of the military medical community towards a research orientation. Unfortunately, AMMA can't find money for supporting research directly, but I hope you as a member will recognise the benefits that may accrue from the associations endeavours.

Spring Rubella Outbreak amongst Military Apprentices in North West Sydney

by
Dr Jeffrey Stephenson
Medical Officer, RAAF Richmond

Introduction

A documented outbreak of rubella infection has occurred amongst a group of 32 naval apprentices and 3 RAAF members at a nearby base. All the naval personnel lived in communal quarters and the appearance of new cases was rapid over several days in late September 1991 and early October 1991.

Methods

As the apprentices were living on base and were infectious to other members they were placed in a

separate ward at No. 3 RAAF Hospital, Richmond. This would not be feasible in the general community.

All the members were tested serologically for IgM and IgG antibodies specific to Rubella. In addition each patient was asked to participated in a questionnaire to determine their symptoms., their likely contact with pregnant women and the number of working days lost.

A confirmed case is one in which the patient demonstrated Rubella specific IgM antibodies.

The member was considered to have clinical rubella if their symptoms comprised of rash and fever and one or more of arthralgia, lymphadenopathy or conjunctivitis. The patients were also asked if they had been in contact with any other rubella cases. A further two questions related to the presence of a sore throat and nausea and vomiting. The patients were asked if their illness had been correctly diagnosed on first presentation.

Results

The following figures were derived from the questionnaire and serological testing:

Antibodies - 94% (33/35) were Rubella IgM positive

Symptom	Percentage	Number
Rash	100	35
Sore Throat	54	19
Lymphadenopathy	49	17
Arthralgia	34	12
Fever	31	11
Conjunctivitis	29	10
Nausea/Vomiting	6	2
Other Symptoms	6	2

(one patient had abdominal pain and the other generalised pruritus).

All the cases except one, were epidemiologically linked. Of the 35 cases, two patients stated they had been in contact with pregnant women. The cases were correctly diagnosed initially in 77% of cases. The remaining 23% were treated for other illnesses.

The total number of lost working days was 153 days with an average of 4.4 lost working days per patient.

Conclusions

The rapid outbreak of rubella is demonstrated by the appearance of 35 cases within a 3 week interval. All people entering the armed services, invariably live in close quarters during their training and whilst on exercise. In view of the large number of lost working days, rubella vaccination should be given to all new service members as it would prove cost effective.

References

1. Canadian Communicable Disease Surveillance Methods. Vol.1753.1991.

Acute Airway Management

by

Wing Commander William M. Griggs

Disclaimer

This series of articles on acute trauma management is intended as an aid memoire only. Physicians who are likely to have to treat acutely injured patients are advised to apply to the Royal Australasian College of Surgeons to attend a EMST course. While this series is specifically about the trauma patient, many of the principles of care also apply to the non-trauma patient

Introduction

After ensuring your own and the patient's safety, airway management takes absolute precedence in the acute management of the trauma patient. It is

important that anyone who may have to manage an acutely injured patient has a good understanding of the principles and practice of airway care.

At all times during assessment and management of the airway consideration must be given to the possibility of cervical spinal injury. This is particularly true in the presence of neck pain, neurological signs or symptoms, or any injury above the level of the clavicles. Most airway manoeuvres can be managed with the cervical spine immobilised as much as possible. However, an intact cervical cord is of no value to a person who dies from airway obstruction and each case should be judged on its own merits.

Virtually all assessment and management assumes that any helmet if present has been removed. Methods for safely doing this will be discussed in a later article.

Assessment

Initial assessment of airway patency can be as simple as getting the patient to answer a question. A lucid response to the question "How are you ?" indicates not only airway patency, but also tells you about ventilation and circulation to the extent that the brain is getting enough oxygenated blood to enable thought processes to occur. However, if there is not a lucid response, further investigation of the airway is essential. Early application of high flow oxygen (12L/Min) should be used wherever available.

A hand placed in front of the mouth and nose may detect warmth or moisture from exhaled gases. It is important to determine whether or not there is evidence of respiratory movement as absent respirations obviate many of the signs of airway obstruction. The mouth should be opened and a visual inspection made to seen if any foreign bodies are present such as vomitus, false and/or broken teeth, chewing gum etc are present. Any obvious foreign bodies should be removed with the exception that correctly sited false teeth may be left in-situ.

If breathing is present, the presence of noisy respirations indicates a degree of respiratory obstruction. Total obstruction, of course, results in no flow and therefore no noise. It may not always be easy to hear respiratory noises particularly when loud noises are nearby. In these circumstances, a hand placed over the larynx may detect vibrations due to partial obstruction. This can be quite a useful technique.

Management

Removal of any foreign bodies is important. Opening the mouth and clearing large pieces with a gloved finger is the first option. If suction is available a wide bore sucker can be used for material out of reach of the finger.

Simple manoeuvres should always be tried first. The correct positioning of the jaw should be done to eliminate possible obstruction from the tongue lying against the back of the pharynx. This can be either by the chin-lift or the jaw-thrust. It is easiest to translate the jaw forward with it slightly open.

Either oropharyngeal or nasopharyngeal airways can be tried. Oropharyngeal (Geudel) airways are inserted upside-down and then rotated 180° at the midpoint of insertion. This avoids the problem of sliding under the tongue which can occur if they are inserted the correct way up. Insertion of an oropharyngeal airway may not be tolerated by a patient with an intact gag reflex. Nasopharyngeal airways can be difficult to insert although they stimulate the gag reflex less. The nasal turbinates can physically obstruct passage through the nose. and they may frac-

ture during insertion. It is also possible to push them submucosally into the retro pharynx if excessive force is used for insertion. This usually causes significant bleeding and further airway problems and is ideally avoided !

Endotracheal intubation should be considered if the above are all unsuccessful. Either nasal or oral routes can be used. The nasal route is preferred for blind intubation as the tube is firmly supported. However, all the problems of the naso-pharyngeal airway can occur with the nasotracheal tube. Also, there have been reported cases of intracranial insertion of nasal tubes in the presence of a fractured skull (in particular the cribriform plate). Whilst these reports have been due to attempted nasogastric insertion, the problem has also occurred with nasotracheal tubes. Care should be exercised in the presence of head injuries. Oral endotracheal intubation can not usually be performed blind and requires a laryngoscope and direct laryngoscopy. Correct positioning of the endotracheal tube MUST always be confirmed by auscultation of both sides of the chest AND epigastrium. Air rushing up and down the oesophagus can simulate normal breath sounds and therefore it is important to listen over the epigastrium in all cases. If the ambient noise is too high, visual chest wall movement is helpful. An endotracheal tube should be inserted to about 21 mm mark in the average sized adult. This will position the cuff below the vocal cords and still leave the tip of the tube above the carina. During laryngoscopy the tube should be inserted until the cuff is just below the cords. A tube inserted too far will usually go down the right main bronchus resulting in unequal ventilation. The endotracheal tube may become obstructed by secretions, blood or by the cuff herniating over the end. Consideration should be given to removing/replacing the endotracheal tube in cases of inability to ventilate or adequately oxygenate a patient. Re-laryngoscopy may be useful to confirm that the tube has not become dislodged and is still passing through the vocal cords. Severe bronchospasm can simulate airway obstruction in the intubated patient.

If intubation is impossible and airway access is urgently required consideration must be given to the creation of a surgical airway.

Cricothyroid insufflation has been advocated as a temporising measure to provide oxygenation although it is not adequate for carbon dioxide clearance. A large bore (16 gauge at least) cannula is passed through the cricothyroid membrane and the cannula connected to a high flow oxygen source. The source must be intermittent to allow exhalation. This can be achieved by using a special injector, or by using a constant flow with a Y - piece which is occluded for inspiration to occur. The value of technique in the field is questionable.

Cricothyrotomy is the making of a formal incision through the cricothyroid membrane. This membrane lies very superficial and can usually be easily felt between the thyroid cartilage and the cricoid ring. A scalpel is used to make an incision through the skin and the membrane. A tube is then passed into the trachea. An endotracheal tube may be used, but care must be taken not to pass it into the right main bronchus (check for equal chest movement and breath sounds).

<u>Summary</u>

Good airway assessment is important and includes visual inspection, listening and even palpation of the airway. If obstruction is identified the steps to be considered are:-

Manual clearance

Chin lift / Jaw thrust

Oro- or naso-pharyngeal airway insertion
Endotracheal intubation
Surgical Airway

As far as possible always attempt to keep the cervical spine immobilised by use of a second pair of hands and/or a cervical collar.

Associate Membership

The last council meeting passed a resolution to include a new membership category. This will be associate membership, open to anyone with a genuine interest in military medicine who does not fulfil the criteria for full membership. Associate embers will have no voting rights and will not have a place in the council, but in all other ways may be involved in the associations' functions. These members who know of people without tertiary qualifications or the equivalent who would be interested in joining the association, please get them to conduct the Secretary for a membership form. Joining fee for associate membership is $20, annual fees $10, the same as student membership.

The medical Care of Iraqi Enemy Prisoners of War

by

Longmire A. and N. Desnukh

Military Medicine. Vol.156.No.12.1991.p645-648.

During operation Desert Storm approximately 62,000 enemy prisoners of war were captured by the coalition. From January 27 to February 23 1991 approximately 300 patients were treated. From the beginning of the ground war on February 24, though March 30 approximately 8,979 patients were treated. The most commonly treated conditions seen was dental disease (24.0%). Other commonly treated conditions were upper respiratory tract infection (12.4%), headache (11.7%) and urinary tract infections (9.6%). The unique problem of the language barrier and security requirements increased the difficulty and the time required to conduct sick call for Iraqi EPWs.

Comment: The work load for medical personnel could have been horrendous, if coalition casualties were higher. How was there such a high number of UTIs among male prisoners of war?

Treatment of Malaria Acquired in Southeast Asia

by

Shanks D. and J. Boslego

Military Medicine. Vol.157.No.1.1992.p4-6.

Falciparium malaria will continue to be a major threat to military operations in Southeast Asia. The continued advance of multiple drug resistant strains will make the selection of effective chemotherapy increasingly difficult. Chloroquine and pyrimethamine/Sulphadoxine have been severely compromised and mefloquine resistance is no longer rare. Although new antimalarials such as qinghaosu are being developed, quinine remains the basic drug for severe malaria. Despite its complexities as a disease, malaria is a readily treatable infection once medical officers are aware of the potential pitfalls. Military physicians must stay abreast of the constant evolution of drug - resistant malaria.

Comment: Cambodian UNTAC forces must be a major source of concern for those who provide their medical care.

Telemedicine: Military Applications

by

Rayman R.

Aviation, Space and Environmental Medicine. Vol.63.1992.p135-137.

Communications technology has enjoyed enormous growth in recent years and should be fully exploited by the medical community. Its application as part of disaster response was well demonstrated in the aftermath of the tragic earthquake in Soviet Armenia in 1988. Besides disaster response, telemedicine also has application for patient care, diagnostic imaging, training and education. This capability would be particularly beneficial to armed forces of many nations. If the communications equipment were portable, it could be well employed during peacetime, yet easily deployed to the battlefield. Therefore armed forces should fully exploit telecommunications technology for the practice of military medicine.

Comment: Medical communications systems are an underdeveloped area within the ADF that needs for attention.

Spatial Disorientation in Naval Aviation Mishap: A review of Class A Incidents from 1980 through 1989

by

Bellenkes A., Bason R. and D. Yacavone

Aviation, Space and Environmental Medicine. Vol.63.1992.p128-131.

Spatial disorientation (SD) has long been a major aero medical factor contributing to naval aviation mishaps. In the past, it has been viewed as a generalised phenomenon, described by its vertigo - related symptoms. More recently, however, three distinct types of SD have been identified, each based on whether the aviator recognises and responds to its onset. In the current retrospective study, Flight Surgeon and Mishap Investigation Reports from 33 Class A Mishaps occurring from 1980 through 1989 were reviewed. SD was determined to have been a causal factor in all cases. The mishaps were examined to categorise SD into the three descriptive types and to describe the relationship (if any) between SD and various mission - related factors. Aircraft type, phase of flight, time of day, pilot experience and flight topography were all considered. The results indicate that Types I and II SD could be identified as casual factors in all 33 Class A mishaps. Further, most Type I DS was experienced primarily be helicopter pilots at night while most Type II SD incidents affected jet pilots during day missions.

An assessment of pre- and - post-fitness measures in two remedial conditioning programs

by

Woodruff S., Conway T. and J. Linenger

Military Medicine. Vol.157.No.1.1992.p25-30.

The purpose of this study was to determine if taking part in a command- organised remedial physical training program is effective in reducing body fat, improving failure-specific performance on components of the Physical Readiness Test (PRT), and improving overall physical fitness level. Pre-

and post-program PRT results collected for participants in two remedial programs showed trends toward improvement in performance on the curl-ups, push-ups and run/walk tests as well as a positive change in overall classification. Scores and percentage of participants passing the follow-up PRT. A substantive impact on body fat reduction was not demonstrated.

Comment: Most of these participants were on the remedial program because they were overweight in the first place. The program did not appear to help them.

List of New Members

Major R.L. Adams
Colonel R.N. Atkinson
Wing Commander S.C. Babu
Colonel R.W. Beal
Wing Commander G. Boothby
Major C.H. Brown
Wing Commander H. Bartholomeusz
Colonel D.D. Beard
Lieutenant Colonel A.S. Cameron
Wing Commander R.A. Capps
Captain C.J. Cunneen
Commodore M.H. Dowsett
Flight Lieutenant B.P. Finn
Lieutenant N. Gallagher
Wing Commander M.J. Hine
Lieutenant Colonel N. Jensen
Lieutenant Colonel J.W. Kelly
Lieutenant Commander S.A. Langford
Lieutenant N.J. Leeks
Lance Corporal E.H. McNeill
Major P.D. McCarthy
Lieutenant A.S. McLaren
Lieutenant Colonel I.B. McPhee
Lieutenant Commander R.C. Mills
Lieutenant R.S. Page
Sub Lieutenant J.T. Provan
Lieutenant Commander L.J. Morton
Major R.R. Salter
Lieutenant T.J. Sinton
Sub Lieutenant M.R. Slaven
Sub Lieutenant M.J. Stone
Major L.J. Vawser
Lieutenant R.M. Walker
Lieutenant Colonel G. Wells
Major M.A. Wertheimer
Lieutenant Colonel J.M. Wettenhall
Lieutenant K.P. Withers

AMMA National Conference
August 7-9 1992

Conference Program

Friday 7 August 1992

1900 Registration and Conference Dinner
Venue: Naval and Military Club
25 Little Collins Street
Melbourne
Dress: Lounge Suit

Saturday 8 August 1992

Venue: The Auditorium
St Frances Xavier Cabrini Hospital
Cnr. Isabella Street and Wattletree Roads, Malvern
Dress: Winter Service Dress or Civilian Equivalent

0800-0815 Late Registration
0830-0930 AMMA ANNUAL GENERAL MEETING
0930-1000 Military Medicine in Australia - *Air Vice Marshall M.D. Miller (Surgeon-General ADF)*
1000-1030 MORNING TEA

1030-1120	Management of Burns
	Lieutenant Colonel I. Leitch
1120-1140	The Role of the Oral Surgeon in War
	Flight Lieutenant B. Finn
1140-1230	Psychiatric Problems in Aviation
	Dr D. Kopolov
1230-1330	LUNCH
1330-1345	A Brieif History of Biological Warfare
	Surgeon Lieutenant Commander A.G. Robertson
1350-1435	Chemical Warfare in Iraq
	Surgeon Commander J. Parkes
1435-1455	Chemical Warfare Cooling
	Captain R.J. Stacy
1455-1515	NBC Respirators - Clinical Experience
	Wing Commander W.M. Griggs
1515-1545	AFTERNOON TEA
1545-1605	Eye Standards
	Surgeon Lieutenant Commander R.J. Wolfe
1605-1625	Overuse Injuries in RAAF Recruits
	Squadron Leader J.A. Ross
1625-1645	Update on AIDS in the RAN
	Surgeon Captain M. Flynn

Sunday 9 August 1992

0900-0930	Images of Gallipoli
	Lieutenant Colonel R. Bastiaan
0930-0950	Stoddart - An Early Flying Doctor
	Dr J.C. Lane
0950-1010	U.S.N.S. Comfort - A Nursing Perspective
	Squadron Leader G. Robinson
1010-1030	Rehabilitation of British Troops After Desert Storm
	Captain R.J. Stacy
1030-1100	MORNING TEA
1100-1130	Operation Habitat - A Kurdish Experience
	Major M. Little
1130-1150	Preparing Kit - Equipment Selection for Cambodia
	Major H. Engel
1150-1210	Casualty Staging Facility in K92
	Wing Commander G. Boothby
1210-1240	Medical Awareness - Bougainville
	Surgeon Lieutenant Commander H. Foster
1240	MEETING CLOSURE

AUSTRALIAN MILITARY MEDICINE ASSOCIATION

First National Conference and Annual General Meeting
Melbourne, Victoria
7 - 9 August 1992

Registration Details

Venue: Conference Dinner 7 August 1992 : The Naval and Military Club
25 Little Collins Street,
Melbourne

Scientific Program 8 - 9 August 1992 : The Auditorium,
St. Frances Xavier Cabrini Hospital
Isabella Street,
Malvern, Victoria

Dress: Winter Service Dress or Civilian Equivalent

Accomodation: Available at the Naval and Military Club (Ph: (03) 650-4741) from $67.00 per night

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Name:_____
Title/Rank Surname Preferred Name

Contact Address:_____

_____
Suburb/City State Postcode

Telephone Number:_____

I will be attending the Full Program/Scientific Program only

Please return this form by **31 July 1992** with a cheque made out to AMMA for:

$100 (Full program, including Conference dinner)
$70 (Scientific Sessions)

TO:

Dr. Nader Abou-Seif
AMMA Conference Committee
63 Hogan's Road
Hopper's Crossing, Victoria 3029

Note: Non - AMMA Members welcome to attend