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

Facsimile Edition - November 1995

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.

DISCLAIMER

The opinions or assertions contained in this newsletter are those of AMMA and do not reflect the official policy or position of the Department of Defence. The citation of trade names does not constitute endorsement by the Department of Defence.

Council Election Results

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

<table>
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<tr>
<th>Council Position</th>
<th>Name</th>
<th>Work Phone</th>
<th>Home Phone</th>
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<tr>
<td>President</td>
<td>SqnLdr James Ross</td>
<td>08 2562266</td>
<td>08 3330526</td>
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<td>Vice President</td>
<td>Dr Nader Abou-Seif</td>
<td>03 7496777</td>
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<tr>
<td>Secretary</td>
<td>SqnLdr Marcus Skinner</td>
<td>07 2602520</td>
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<tr>
<td>Treasurer</td>
<td>LCdr Chris Maron</td>
<td>07 9600442</td>
<td>02 8100385</td>
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<td>Newsletter</td>
<td>Maj Mark Slatyer</td>
<td>09 3830639</td>
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<td>A.C.T. Liaison</td>
<td>Cdr Tim Dillon</td>
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<tr>
<td>Member</td>
<td>LCdr Andrew Robertson</td>
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<td>Member</td>
<td>LCdr Russell Schedlick</td>
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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 Malaria 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.

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


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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 see 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 retropharynx 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 cribiform 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).

Summary

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 members 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


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 were 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


Falciparum 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.

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.

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


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. Eartholomeusz
Colonel D.D. Beard
Lieutenant Colonel A.S. Cameron
Wing Commander R.A. Capps
Captain C.J. Cunneen
Commodore M.H. Dowsett
Flight Lieutenant E.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. McNell
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. Werhelmer
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 L. 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 Brief 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

Accommodation: 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