ABSTRACTS

Monday, May 18, 2015
Workshop 1 145
Workshop 2 146

Tuesday, May 19, 2015
Workshop 3 148
Workshop 4 150
Workshop 5 150
Workshop 6 152

Thursday, May 21, 2015
Workshop 7 153
Workshop 8 154
Triage of Nerve Agents: Management and Protocols

Mohammad Ali Khoshnevis(Ph.D) 1, Jafar Aslani(MD) 2, Yunes Panahi(Ph.D) 2
Ali Rahmani(Ph.D) 1
Mohammad Ali Khoshnevis: 1 Faculty of Nursing, Baqiyatallah University of Medical Sciences, Tehran, Iran
Jafar Aslani: 2 Chemical Research Injuries Center, Baqiyatallah University of Medical Sciences, Tehran, Iran
Yunes Panahi: 2 Chemical Research Injuries Center, Baqiyatallah University of Medical Sciences, Tehran, Iran
Ali Rahmani: 1 Faculty of Nursing, Baqiyatallah University of Medical Sciences, Tehran, Iran

Triage is the process of classification and prioritization of possible emergency lookouts. Medical teams of each military system are in charge of facilitating, supporting, and boosting capacities and strength of engaged military unites. There is no advanced triage system for nerve agents, until now.

Objective: This systematic review provides a unique triage protocol for nerve agent exposed patients.
Methods: Clinical sign and symptoms of nerve warfare agents, primary treatments and transportation, and classification of patients were extracted according to literature. All related articles were reviewed. Subsequently, specialists of different disciplines were invited to discuss and revise protocols.
Results: Finalized triage tables were achieved including classification and required guidelines in the field and hospital after several meetings.
Conclusion: Improved triage system suggests precise and/or combined dosage of drugs and treatments during field or hospitalization.

Keywords: Chemical Guidelines, Triage, Chemical warfare, Nerve agents, Protocol.

Comparison of the Effects of Conventional and Simulation Teaching Methods on Nursing Students’ Knowledge in Personal Protection in Chemical Attacks

Afaghi E1 (MSc), Ebadi M 2 (MSc), Sharififar ST 3 (MSc), Zareiyan A 4 (Ph.D)
1- Master of Science student in critical care nursing, Nursing Faculty, Baqiyatallah University of Medical Sciences, Tehran, Iran
2- Master of Science in nursing, AJA University of Medical Sciences, Tehran, Iran.
3- Master of Science in nursing, Instructor of nursing, AJA University of medical Sciences, Tehran, Iran.
4-PhD in nursing, Assistant Professor, Nursing Faculty, AJA University of Medical Sciences, Tehran, Iran.

Introduction: Reviews the history of human warfare especially in recent wars indicate many countries as hidden and apparent have access to the chemical, biological and nuclear war far. In our country, Government of Iraq used Widely 92 times mustard against Iranians. We are still Witness complications among victims of chemical weapons. Protections of individual and collective is the first step defense against contamination by chemical agents. Failure to proper personal protective by Iranians in Iraqi imposed war against Iran Especially the lack of mask making and or Lack of training and Culture of personal protective despite having Equipment hasled victim biggest of chemical warfare on the world. This study was designed to compare the effect of conventional and simulation training on nursing students’ knowledge in Personal protection in chemical attacks.

Method: In this training trials study Comparison of the effects of conventional and simulation teaching methods on nursing students’ knowledge in Personal protection in chemical attacks. 78 nursing students AjA University of Medical Sciences were selected and allocated randomly to two groups of simulation and conventional Education. Data collection included a researcher-made questionnaire consisting of two sections including demographic information and questionnaire to assess their knowledge and Questionnaires were completed by nursing students before and two weeks after education. Its validity was determined by content validity method and its reliability by test/retest. Data was analyzed using descriptive and interpretive statistical methods and SPSS version 20.

Results: Knowledge scores means in the two methods of simulation and conventional education increased from 22/677and 21/95(P=0/204) before education to 26/22 and 26/31(P=0/846) after education. Mean scores of knowledge in
the two methods significantly increased after education (P<0.05). There was no significant difference between the two methods concerning knowledge scores means.

**Conclusion:** The present study showed that educational are necessary for increasing knowledge but there was no significant difference between the two methods concerning knowledge scores means in Personal protection in chemical attacks.

**Keywords:** personal protection, simulation method, conventional method, Knowledge, nursing students

---

**Biomarkers Monitoring Revealed New Toxicological Features of Sulfur Mustard**

Hua Xu a, Bin Xu a, Yajiao Zhang a, Lijun Yue a, Chunzheng Li a, Zhiyong Nie a, Wenfeng Yang b, Jijun Tang a, Jianfeng Wu a, Peng Wang a, Jia Chen b, Bidong Wu a, Ying Lin a, Qin Liu a, Lei Guo a, Jin Zhao a, Junwen Mao a, Jianwei Xie a,*

a Institute of Pharmacology and Toxicology, Academy of Military Medical Sciences, 100850 Beijing, China
b PLA 307 Hospital, 100039 Beijing, China

**Introduction:** Sulfur mustard (SM) is a powerful alkylating vesicant which could rapidly penetrate into body and react with numerous nucleophiles in vivo. Monitoring the biomarkers of SM in biomedical samples is meaningful for validation the exposure as well as explanation of the intoxicant substantial bases and mechanisms.

**Methodology:** New methods based on liquid chromatography-mass spectrometry (LC-MS) and gas chromatography (GC)-MS were established to detect the intact SM, hydrolysis/oxidation products, β-lyase metabolites, DNA adducts and haemoglobin adducts in animal models. The methods were further employed to validate four SM exposure suspected cases.

**Results and Discussion:** Seven methods for detection the biomarkers were validated and employed to study in vitro and in vivo. The relationships between biomarkers of SM and exposure time or dose were revealed. Especially, the results revealed intact SM surprisingly lasted for several hours in blood samples. High level of SM was found in adipose tissues than non-adipose tissues, hinted an accumulation effect of intact SM occurred under lipid-rich environment. And higher abundance of cross-linked adduct Bis-G was preliminarily found in tissues, especially in brain and marrow, indicating a more serious DNA lesion may happen. These methods were further employed to verify four SM exposure cases. Total analysis of four types of SM biomarkers in human clinical samples showed a good accordance between concentration and level of burns, between time course and biomarkers.

**Conclusion:** Based on the new methods, SM exposure can be well validated and new toxicological significance of SM was revealed by monitoring the biomarkers in vivo.

**Key words:** Sulphur mustard; Biomarker; Toxicology

---

**DVI Management in Indonesia**

Anton R. Castilani. M.D, DFM.

Chief of the Department of Police Medicine, Centre for Medical and Health Services of the Indonesian National Police – The Executive Director of the Indonesian National DVI Committee (INDVIC)

There are a lot of differences to compare on managing victims for identification since the 2002 suicide Bali Bombing up until the Air Asia flight QZ 8501 incident (Dec 2014 - March 2015). There were various incidents happened in Indonesia from all of types of natural disasters as well unnatural disasters either with unintentional motifs such as transportation accidents to deliberate intention of a disaster such as terrorism. Additionally, Indonesia geography and diverse ethnicity and religion have placed Indonesia as one country with multi facets of disasters. Those incidents has inflicted numbers of casualties. During those years the Indonesian national DVI committee (INDVIC) thrived on handling those DVI operations with care either on provincial or national extent.

All of those conditions could be dealt only with hard work of trainings, learning and improvement of forensic sciences as platform to become the best of the best with professional attitude to serve humanity through DVI. This could only happen because of the conception that is being planned and managed strategically by the board members of the INDVIC. There are four major principals to develop DVI in Indonesia, which they are brain ware; software; hardware and network. Those four principals are intersected with the management which consisted of planning; organizing and coordination; execution as well command and control. On the field those would be challenged with the DVI procedures
consisted of the four phases of DVI to have a running as planned DVI operation.

**Keywords:** DVI management, forensic sciences, four major principal

---

**DVI Operation on Air Asia Flight QZ8501 Accident at Java Sea - Indonesia**

Police Senior Superintendent dr. Antonius Ritchi Castiliani, MSi, DFM,
Police Superintendent dr Agung Widjajanto, SpF, DFM,
Police Superintendent drg. Lisda Cancer, M.Biotech

On 28 December 2014, Air Asia flight QZ8501 took off at 05.35am from Juanda International airport Surabaya was never arrived in Changi International airport Singapore as scheduled. The plane carried passengers and crews of 162 people with nationalities of Malaysia, Singapore, South Korea, UK and French.

The Indonesian National DVI Committee (INDVIC) established its Command post and appointed the East Java DVI committee as the lead commanding task force. Thus, making the head of the East Java DVI commander as the Chief de’ mission of all DVI operation regarding the Air Asia incident. Regardless the incident location within Indonesia, this DVI operation had transformed to an international cooperation which countries such as Malaysia, Singapore, South Korea, United Arab Emirates, and Australia had sent their best DVI teams for support despite of their citizens were amongst the victims.

There were approximately 97 passengers from the Air Asia flight QZ 8501 were identified from a total of 115 victims evacuated. The identification process was using various methods either the primary identification methods from fingerprints, dental records and DNA profiling as well the secondary identifiers from medical findings and properties. All aspects of DVI phases from the phase one up to the second, the third and fourth phases can be performed smooth and seamlessly and according to the standard tactical plan with periodic adjustments due to situation reports followed.

**Keywords:** DVI operation, international cooperation, identification process

---

**Odontology Examination of Identification of War Victims**

Ade Reggy Rahadianto, DDS, Iwan Dermawan, DDS
Indonesia Army Central Hospital Gatot Soebroto, Jakarta - Indonesia

Sometimes it is difficult to identify the victims of war to determine the identity of the victim. Especially in the army line of duty somewhere. Sometimes things happen that are not desirable. Often terrific damage occurs to the victim so that the victim’s body is difficult to be identified. Therefore we need a method or a valid tool to identify the victim. One is the role of forensic odontology as a method of identification.
Safety and Efficacy of Primaquine when Partnered with Artesunate or Artesunate-Pyronaridine or Dihydroartemisinin-Piperaquine for Radical Cure of Vivax Malaria in Indonesia

Bagus Tjahjono, MD, MPH
Indonesia

Background
This randomized and open-label trial provides clinical evidence of safety and efficacy of primaquine when partnered with artemunate, artemunate-pyronaridine and concurrent dihydroartemisinin-piperaquine against *P. vivax* infection acquired in Papua, Indonesia. Possible relationship between CYP2D6 phenotype and risk of therapeutic failure of direct observed primaquine were explored among relapsed and non-relapsed subjects.

Methods
532 soldiers returned to their malaria-free base in East Java after 6 months of duty in malarious northeastern Papua, Indonesia. 1096 blood film examinations of them occurred within 4 months of return. 232 soldiers had malaria and 214 with vivax malaria were eligible for study. 180 enrolled subjects were randomized to three treatment groups: artemunate (200mg single dose followed by 100mg/d X 6d) followed 2 days later by primaquine (30mg/dX14d); artemunate (180mg/dX3d) pyronaridine (640mg/dX3d) plus concurrent primaquine (30mg/dX14d); or dihydroartemisinin (120mg) piperaquine (960mg) once daily for 3 days plus concurrent primaquine (30mg/dX14d). Subjects were followed with passive and active malaria case detection for 365 days following enrollment. The frequency of fast-intermediate-slow CYP2D6 metabolism of single dose of dextromethorphan was examined among 26 relapsed and 36 non-relapsed subjects after directly observed primaquine administration.

Results
Relapse occurred in 10 of 60 (17%) subjects randomized to artemunate therapy plus primaquine (0.20 attacks/person-year); 9 of 60 (15%) administered artemunatepyronaridine plus primaquine (0.17 attacks/person-year); and in 7 of 60 (12%) assigned to dihydroartemisinin-piperaquine plus primaquine (0.13 attacks/person-year). By comparing natural of relapse rate from previous study in East Java, the efficacy of primaquine against relapse by incidence density parameters was 93% (85%-97%) for artemunate plus primaquine, 94% (87%-97%) for artemunate-pyronaridine plus primaquine and 95% (89%-98%) for dihydroartemisinin-piperaquine plus primaquine.

Conclusions
This study provided clinical evidence of the good safety, tolerability, and efficacy of primaquine against relapse in G6PD-normal men when administered with dihydroartemisinin-piperazine, artemunate-pyronaridine or artemunate for acute vivax malaria.

The Role of an Effective Malaria Vaccine in the Management of Malaria in Military Personnel

Dr. Eileen Villasante(1)
(1) Naval Medical Research Center

Introduction
Military personnel deploy worldwide to execute combat and security operations to promote regional stability, engage in humanitarian missions, and participate in peacekeeping operations. Some of the regions to which military deploy are endemic for malaria. Most military personnel from developed countries are non-immune to malaria and suffer high rates of morbidity and mortality when infected.

Methodology
Currently, malaria prevention in the military includes prophylaxis with drugs, and use of insecticide-treated bed nets and mosquito repellants; however, these interventions are not 100% effective due to parasite resistance to the drugs, mosquito resistance to insecticides, and varying degrees of non-compliance with personal protective measures.

Results
A highly effective malaria vaccine designed to prevent infection in military personnel is urgently needed.

Conclusion
The attributes of the ideal malaria vaccine for protecting military personnel and the current leading candidate vaccines will be presented.

Keywords
Malaria, vaccine, Malaria Prophylaxis
xRAPID: A Mobile Automated Malaria Field Diagnostic

Prof David-A. Mendels
Surya University, GadingSerpong, Tangerang, Indonesia
xRapid, London, UK

Keywords: malaria, diagnostic, automated, image analysis, microscopy
This work introduces the first fully automated diagnostic method and apparatus for rapid malaria detection using a microscope attachment to a mobile phone. While various attempts have been made at computerized image analysis for detecting malaria in thin and thick smears, xRAPID achieves in-phone, off-network diagnostic capability. The main attributes are:
- a miniaturized back-lit upright microscope, with x, y and z independent displacement
- an attachment and support for a mobile phone (iPhone 5S, 6, 6+ compatible)
- an app for automated diagnostic of the four main types of plasmodium encountered in the field: falciparum, vivax, ovalae and malariae (including co-infection)
- a local patient database with networking capabilities, including strong encryption and/or anonymized data
- geotagging of data with live/asynchronous reporting to a central server.

The microscope achieves maximum portability, with dimensions of 13x11x5cm³ and weight of 480g, while retaining all the capabilities of a standard upright microscope, with 100, 400 and 600x magnifications (Figure 1). The diagnostic of giemsa-stained specimen is based on
- a combination of non-linear chromatic filters,
- a size analysis,
- a measurement of color and granularity of cells,
- a digital pattern recognition and artificial intelligence algorithm.

The analysis does not require a network connection. A single field of view is analyzed in a second, a quantitative test with a parasite count accurate to 0.1% in about a minute.

Figure 1: xRAPID, portable microscope on a tripod stand with the xyz stage visible on top, as well as the back-light, iPhone attachment and malaria detection software
During the last two decades, there is a significant increase in chronic diseases which affect the brain, liver, skin, lungs and the heart. Some of these diseases can be – from an etiologic point of view – characterized as autoimmune (e.g. diabetes mellitus, rheumatoid arthritis, lupus, etc.), others are more allergic in nature and there is a third group of disease entities which comprise chronic degenerative diseases, especially those affecting the central nervous system.

Neurodegenerative diseases, like Parkinson’s disease, Alzheimer’s disease, amyotrophic lateral sclerosis and multiple sclerosis, have all four a common feature: they are linked to a mutated protein which is generating a chronic inflammatory activation of microglial cells in different parts of the brain. This inflammatory immune activation leads to recruitment of other activated immune effector cells (especially M1 polarized macrophages) which in turn release cytokines and cytotoxic free radicals. Subsequently, motorneurons are dying off from this ongoing inflammatory environment.

A very similar pathomechanism can be observed for atherosclerosis and a variety of autoimmune diseases, where the initial trigger of unspecific macrophage activation creates an inflammatory tissue environment within affected organs. Inflammation is always associated with release of acidic compounds (e.g. lactate) which drop tissue pH. Acidity causes pain, weakens mitochondrial energy supply and enforces glycolytic oxidation which aggravates the release of acids and free radicals which in turn enhance the ongoing inflammatory immune responses.

One important consequence resulting from chronic inflammation and tissue acidity is a paucity of stem cell function. Stem cells do not like acid tissue environment. A drop of pH below 7.0 will paralyze their ability to restore and rejuvenate the tissue compartment they target.

In order to address this, we have developed an anti-inflammatory cellular product based on monocytes, isolated from the patient’s own peripheral white blood cells. These cells undergo a programming procedure outside the body which takes between 5-7 days. This re-programming of the monocytes allows them to gain immune regulatory functions. As such, these cells are able to rebalance and regulate chronically activated immune cells. Thus, the acidity is controlled, the pH is elevated and the body’s stem cells start to work properly again.

The lecture will give a thorough inside into the immunological mechanisms involved and outline the complementary therapeutic concepts applied simultaneously. Latter are necessary to optimize the efficacy of the personalized individual cellular products given to the patient.

Prevention of Non-communicable Diseases in Military Forces

Colonel Ali Reza Khoshdel, MD, MPH, PhD, Associate Professor in Epidemiology
Iran

Background
Non communicable diseases (NCDs), also known as chronic diseases, are not passed from person to person. They are of long duration and generally slow progression. The 4 main types of noncommunicable diseases are cardiovascular diseases (like heart attacks and stroke), cancers, chronic respiratory diseases (such as chronic obstructed pulmonary disease and asthma) and diabetes. Non-communicable diseases are rapidly progressing epidemics in developed and developing countries. Although, military forces are usually selected after a careful screening and supposed to be healthy, the burden of NCD is increasing among military personnel. For instance, the incidence rates of diabetes, hypertension, asymptomatic kidney dysfunction and cancers are rising in almost all military forces. Additionally, military personnel are exposed to several NCD risk factors. Consequently, though NCD may remain asymptomatic during active duty period, the incidence of NCD in veterans seems to be higher than the general population. Under the leadership of the WHO more than 190 countries agreed in 2011 on global mechanisms to reduce the avoidable NCD burden including a Global action plan for the prevention and control of NCDs 2013-2020. This plan aims to reduce the number of premature deaths from NCDs by 25% by 2025 through nine voluntary global targets. However, there is no guideline or official agreement to set the prevention goals in military forces.
HIV AIDS in Ramelan Navy Hospital: Battle against double attack.

Herjunianto

dr.Ramela Naval Hospital, Surabaya - Indonesia

Since its global appearance, the Human Immunodeficiency Virus has represented the most devastating epidemics and one of the world’s greatest challenges today. All AIDS related issues are different in two macro areas, the first pertains to the clinical aspect, the other a psycho-social dimension.

Over the past years, the approach towards AIDS has changed, medicine and science have both evolved, and there have been numerous studies that highlight the process that related to the disease, which now is no longer necessarily associated with death. But the psychosocial perception has not changed, damaging who is affected finding themselves fighting not only against its illness but against stigma, prejudice and exclusion.

There is so much stigma and misinformation about HIV AIDS that create issues to fight with, separate from the medical diagnosis. Stigma can prevent soldiers from talking about and acknowledging HIV as major cause of illness and death. It can prevent HIV infected soldiers from seeking counseling, obtaining medical and psychological care and taking preventative measures to avoid infecting others.

The fact that HIV infection had no cure prompted many to seek for traditional medicine and spiritual solution. Although free highly active antiretroviral therapy (HAART) is the widely available, many HIV soldiers are desperately looking for quicker solution to the existing problems of long duration therapy. They abandon the medical cure (HAART) for alternative medicine but end in worse condition.

Keywords: HIV/AIDS, stigma, alternative medicine.

Psychiatric Aspects within Naval Personels Living with HIV-AIDS

By I Ketut Tirka Nandaka , MD, Psychiatrist

Indonesia

Human Immunodeficiency Virus (HIV)-Acquired Immuno Deficiency Syndrome (AIDS) has caused concern in the environment, especially the Navy soldiers, civil, servants and their families, as evidenced by the increasing numbers of HIV-AIDS and also increase the number of death.

HIV-AIDS impact on various aspect of one psychiatry aspect. Psychiatry aspect before HIV infection include internal factors are unstable personality, depressive personality as well as external factors like family problems, the work place and the environment outside.

Psychiatry manifestations are often associated with HIV infection in the form of functional disorders such as depression, anxiety, emotion disturbance to the desire for suicide. We also find psychotic and organic mental disorders such as dementia and delirium. Although it can also feared that the affective mood swings of these patients are also affected by HIV drugs. So that a psychiatrist should be able to see this disorder is derived from the patients refusal of the disease and the patients refusal of the disease and the side effects of treatment.

Psychotherapy is a method of treatment for emotional problems a patient is done by a trained professional relationships, comprehensively with the intent wish eliminate, alter or inhibit the symptoms, of existing symptoms, correcting disturbed behavior and develop positive personality growth. Psychiatrist can help patient cope with feelings of guilt about the behavior that led to his infection or aids.

Keywords: psychiatric , HIV-AIDS , Navy soldiers
Transport Aéromédicalisé du Grand Brûlé
(Air Ambulance Transfer of Severely Burned Patient)

Pr. KARIM EL KHATIB(1) , Pr. Samir SIAH(2)
(1) MOHAMMED 5 TEACHING ARMED FORCES HOSPITAL

Introduction
Le recours à la voie aérienne pour une évacuation sanitaire (EVASAN) d’un brûlé grave est une pratique devenue courante tant il faut agir vite et loin pour sauvegarder le pronostic vital ou fonctionnel du brûlé. La préparation de l’évacuation sanitaire aérienne et la mise en condition rigoureuse du brûlé grave avant le vol sont des impératifs indispensables.

Methodology
Cette mise en condition personnalisée vise essentiellement à anticiper sur tout ce qui est susceptible de survenir pendant le vol et prévenir les contraintes liés à l’altitude.

Results
Nous détaillerons au cours de cet exposé les contraintes aéronautiques et les moyens de les contourner avec surtout l’impact de l’altitude et de l’hypobarie sur la pression des gaz et des fluides utilisés en réanimation du patient ainsi que sur les lésions que peut avoir le patient, l’impact de la baisse de la pression partielle en oxygène de l’air inspiré et enfin l’impact des modifications thermohygrostatiques.

Conclusion
En vol, il faut être très attentif aux effets de l’altitude notamment l’hypoxie, les risques d’expansion des gaz, ainsi qu’aux variations thermiques et hygrostatiques. L’évacuation par voie aérienne nécessite un monitorage et un équipement minimal recommandé par les sociétés savantes.

Keywords
air ambulance transfer, severely burned patient, evasan

Airway and Inhalation injury in Burn

Priyono Purwohusodo
Central Army Hospital Gatot Subroto, Jakarta - Indonesia

Inhalation injury results in serious respiratory failure. When inhalation injury is combined with burn injury or pneumonia, the physiological responses are different and more severe than those of smoke inhalation injury alone. Treatment strategies should be planned based on these pathophysiological aspects.

Inhalation injury is a serious health threat to victims of house fires, explosions, and other disasters involving fire and smoke. The clinical symptoms and prognosis of inhalation injury are often exacerbated by additional burn injury or bacterial infection (such as pneumonia).

Pulmonary injury from smoke inhalation is common in burn victims, significantly contributing to the morbidity and mortality of fire-related injuries. The impacts of improvement in other aspects of burn care have not been mirrored in treatment of smoke inhalation. Rapid assessment and management of airway and breathing problems are required in the patient with severe burns complicated by significant facial burns and inhalation injury.

A policy that results in intubation of all patients at potential risk for airway compromise can be both foolish and dangerous. At the same time, it is recognized that intubation of patients who are likely to develop unstable airways is necessary if transport times to burn centers are long and if i.v. resuscitation is initiated during transport.

Inhalation injuries occur in approximately one-third of all major burns and account for a significant number of deaths in those burn patients each year. Victims die as a result of carbon monoxide poisoning, hypoxia, and smoke inhalation. These deaths can occur without thermal wounds as well as with burn injuries.

There are three distinct problems with inhalation injuries: thermal burns of the upper airway, carbon monoxide poisoning, and smoke inhalation. Each has different symptoms and signs, different treatment, and different prognosis. Thermal burns occurring in the upper airway are usually manifested within 48 hours of injury. Diagnosis is made by direct visualization of the upper airway, looking for signs of thermal injury.

Admission for observation with humidified oxygen, attentive pulmonary toilet, bronchodilators as needed, and propylactic endotracheal intubation as indicated are the mainstays of treatment. Propylactic intubation and CPAP therapy in burn patients with suspected inhalation injury prevent pulmonary related death in early stage of burn. Irrespective of presence of inhalation injury, sepsis originating from the wound or respiratory tract is the main cause of death in the late stage of burn.
Relationship Between Stress and Symptoms of Psychopathology in Military Aviators

Tara Aseana *, Natalia Widiasih **, Irawati Ismail **, Martina Wiwie **
Srimpi Indah Z ***
* First Officer air base Halim Perdana Kusuma
** Lecturer in Medical Education Program Specialist I Psychiatry
Department of Psychiatry Faculty of Medicine, University of Indonesia
*** Head of Mental Health Health Institute of Aeronautics and Space Saryanto Jakarta.

Background: Military Aviators are less likely to experience symptoms of psychopathology because of their strong character to deal with stress. They have a high cognitive, can pass physical test and health, they have standard psychological examination, checking legal issues and habits, their flight training program, and they have flight surgeon to monitor the ability of an aviator including emotional problems and habits. But no one is immune to mental health problems.

Objective: This research aim to find the relationship between stress levels and the presence of psychopathology symptoms in Indonesian military aviators.

Methods: This research is an analytical study with cross-sectional design. Research conducted on active military aviator who was carrying out a routine medical examination in Lakespra, Jakarta between August to November 2013. Stress levels was assessed using a Questionnaire Modification Sumber Stress Pilot Airline and psychopathological symptoms were evaluated using the Symptom Check List 90 (SCL 90).

Results: The prevalence of psychopathology symptoms were 7.8%. There were no significant relationship between level of stress with the presence of psychopathology symptoms in study participants (p= 0.083).

Conclusion: This study found that stress does not have a significant relationship with the appearance of symptoms of psychopathology in military aviators. Other factors that can lead to symptoms of psychopathology such as personality factors, cognitive, and coping mechanisms used by the study subjects was not assessed in this study.

Keywords: military aviators, stress, and symptoms of psychopathology

Military Medicine at War of Terrorism

Achmed Sukendro(1)
(1)Regional Military Command IX/Udayana, Indonesia

Introduction
In accordance with the Law of the Republic of Indonesia No. 34 of 2004, the main tasks performed by the Armed Forces military operations other than war and military operations other than war military operations. The military operations other than war among others cope with terrorism. As part of the military, military medicine has a role in military operations other than war, including the task of overcoming terrorism.

Methodology
This article will elaborate on the role of the military medics in the fight against terrorism in Indonesia with the aim to describe the role of the military medicine in part of the fight against terrorism by the military.

Results
Military Medicine support to military task force education and training at pre terrorism attack, evacuation, post terrorism attack to do to hospitality and forensic process. Indonesian Military Medicine supported Bali Bom Blast 2005

Conclusion
Military Medicine took part in the fight against terrorism from the current pre and post-attack terrorist and when attacking terrorism.

Keywords
military indonesia, military medicine, military operations, War of terror, Military operations, War of terrorism, Military Medicine
Aeromedical Evacuation at Sea

Dr. Arie Zakaria(1)
(1)Indonesia Navy

Introduction
International Convention for the Safety of Life at Sea (SOLAS), states: The master of a ship at sea, on receiving a signal from any source that a ship or aircraft or survival craft thereof is in distress, is bound to proceed with all speed to the assistance of the persons in distress.

Methodology
Literature and exercise review

Results
Search and Rescue Service is the performance of distress monitoring, communication, coordination and search and rescue (SAR) functions. This includes the provision of medical advice, initial medical assistance, or medical evacuation, through the use of public and private resources. This presentation including search pattern, aero medical evacuation (Aerovac) and SAR exercise that have been done by Indonesian Eastern Fleet command. Aerovac are weather dependent, must be have a runway or hellypad, special consideration for some diseases with gas pressure, and limited sitted. There are Technically Consideration, Medical Consideration and Special Consideration for Aerovac. Communication is a key for successful Aerovac

Conclusion
The success of SAR operation depends on the speed with which the operation is planned and carried out, including search pattern and aeromedical evacuation

Keywords
Search and Rescue, disaster at sea, aero medical evacuation

Module for Aeromedical Evacuation in Bulgarian Armed Forces

Nikolay Petrov(1), Rumen Popov(2), Lyubomir Aleksiev(3)
(1)Military Medical Academy, Bulgaria

Introduction
In 2009 Bulgaria accepted to establish Module for Aeromedical evacuation as element of NATO force capability. The module comprises flying assets, flight crew, medical crew, force protection team and medical equipment and supplies.

Methodology
The module is capable of supporting joint and combined expeditionary warfare and tactical deployment in extreme hot and cold weather conditions and of operations in most terrains under austere conditions. Capable of executing forward and tactical (intra-theatre) aeromedical evacuation missions, by day and night, under visual or instrument meteorological condition, according to existing NATO standards in support of NATO forces. The rotary wing asset used for aeromedical evacuation in the Bulgarian Air Force is AS 532AL “Cougar”. It is capable to evacuate up to 3 litter patients or up to 6 sitting patients. It is capable of following NATO standard aeromedical procedures, with the appropriate composition of aeromedical aircrew and equipped with appropriate medical and general equipment and supplies adequate for the care of the number and types of patients transported

Results
The module for aeromedical evacuation performs regular training by day and night and improves its interoperability and qualification. The Bulgarian aeromedical evacuation teams participated in several NATO and PIP international military exercises

Conclusion
The module was certified in 2010 and 2015 according to NATO Air Force Standards and Tactical Evaluation Manual

Keywords
evacuation, aeromedical, Armed Forces