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# 41st ICMM World Congress on Military Medicine









May 17-22, 2015 | Bali Nusa Dua Convention Center - Bali, Indonesia

ISSUE 4 - Thursday May 21st, 2015

### **Day 3 Plenary Session**

### **CHEMICAL BIOLOGIC RADIOLOGIC AND NUCLEAR (CBRN) HAZARDS IN MILITARY PERSONNEL**

By Col Iwan Trihapsoro, MD, DV, Avmed Spec, FINSDV, FAADV

The term CBRN is a replacement for the cold war term NBC (Nuclear, Biological, and Chemical), which had replaced the term ABC (Atomic, Biological, and Chemical) that was used in the fifties. The addition of the R (for radiological) is a consequence of the "new" threat of a radiological weapon (also known as "dirty bombs. In the new millennium, the term CBRNe was introduced as an extension of CBRN - the e in this term representing the enhanced (improvised) explosives threat. CBRN weapons are among the most dangerous weapons in the world.

Today plenary session will discuss the important aspects of CBRN. Col. (ret.) Dr. Prof. Alexander Grebenyuk from the Nikiforov Russian Center of Emergency and Radiation Medicine, EMERCOM of Russia will talk about modern chemical, biologic, radiologic and nuclear hazards and health protection strategy both in wartime and at a peace time. Change of shape of modern armies and the big number of tasks for medical service has changed also health protection strategy. In 20 century the primary goal of health protection was to save the life of soldiers at NBC action in war. Now it is required not only to rescue life, but also to keep health and professional serviceability of military staff and civil personnel in numerous factors of CBRN nature in various conditions.

The NATO-agreed principles of CBRN casualty management are recognition (detect & diagnose), safety, first-aid, casualty assessment and triage, life-saving interventions, and casualty hazard management (contain, decontaminate & isolate); then will come the supportive and definitive treatment before rehabilitation, This topic will be explore further by Frederic Dorandeu, COL, Prof., PharmD., PhD, Benoit Quentin COL, MD as a medical management of CBRN casualties from Role 1 to Role 2 from the French perspective.

After a disaster (natural or man-made) all casualties end up at hospitals both public and military. There are three major pillars

and specialized equipment. Without hardening our hospitals and without investing on people working there no emergency CBRN response plan is applicable. And if cost is supposed to be the biggest obstacle worldwide, first responders must improvise and apply simple solutions that will not cost much while they will do the job. So the question are military hospitals prepared to deal with CBRN casualties in urban environment? BG (ret'd) Ioannis Galatas, MD from Greece will answer this question in his lecture.

It is impossible to protect whole nations from the effects of bioterrorism by preventive vaccination. There are too many possible agents, the costs would be exorbitantly high, and the health risks associated with complex mass vaccination programs would be unacceptable for the public health authorities. Adequate protection, however, could be provided via a combination of rapid detection and diagnosis with proper treatment for those exposed to biological weapon agents. Cdr Dr Stef Stienstra from Netherlands will explain the use of anthrax and orthopox therapeutic antibodies from human origin in biodefense

COL Tom Kodera and CAPT GentaroTsumatori from National Defense Medical College, Ministry of Defense, Japan, discuss their approaches towards countermeasures for CBRN issues in Japan. After experiencing sarin attack in 1995 the Japanese Ministry of Defense has developed policies for counter CBRN measures along with other agencies within the Japanese government. Japan conducted the largest disaster relief operation in 2011, and dispatched Japan Self-Defense Forces units to Fukushima for dealing with the nuclear power plant accident. He will talk also about current topics regarding countermeasures against CBRN such as recent outcomes of their basic research and efforts towards medical education and the need for continued systematic and progressive efforts to build international collaboration for our future.



## Today's Agenda

Thursday, May 21st, 2015

07.30 - 08.30

Meet the Expert

Free Paper

08.30 - 10.15

**Plenary 3** - Chemical Biologic Radiologic and Nuclear (CBRN) Hazards in Military Personnel (Nusa Dua Hall 4, Ground Floor)

10.30 – 12.30 Satellite Symposia Free Paper

12.30 - 13.45

**Lunch Break:** 

HoD (Jimbaran Café, Ground Floor) Delegates (Singaraja Hall, 1<sup>st</sup> Floor) OC (Seminyak Lounge, Mezzanine Floor)

13.45 – 15.45 **Satellite Symposium Round Table Discussion** 

14.00 – 17.00 **General Assembly 2**(Nusa Dua Hall 4, Ground Floor)

16.00 – 18.00 Satellite Symposium Workshop Free Paper

## **41**<sup>st</sup> ICMM World Congress on Military Medicine Daily News

#### Advisor

Major General Daniel Tjen, MD, Neurologist Brigadier General Terawan Agus Putranto, MD, Radiologist

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Col Alexander K. Ginting S, MD, Pulmonologist, FCCP Col MC Iwan Trihapsoro, MD, DV, Avmed Spec, FINSDV, FAADV Col Ben Yura Rimba, MD, MHA

#### Project Coordinator

Ika Nazaruddin (Pacto Convex)

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To view current and past issues of the 41<sup>st</sup> ICMM World Congress on Military Medicine Daily News, please visit www.41sticmmworldcongress.org

#### Labiovak:

The Role of Vaccines as a Force Protective against the Emerging and Infectious Diseases for The Personnel of Measures Indonesian Army

by Colonel Ckm Drs. Budiman Gunawan, Pharmacist, MHA

Vaccines have long been used by military forces in order to prevent communicable diseases and thereby preserve the fighting force. In USA, a tradition that began with the mass vaccination for the Continental Army against smallpox during the War of the American Revolution in the late 18th century has applied up to recently by routine and deployment-based vaccinations of military forces against potential pathogens caused by natural disaster and biological weapon threats. As their role has expanded in recent years to include humanitarian and peacekeeping missions, the military's use of vaccines against infectious diseases has concomitantly broadened to include civilian populations worldwide. The emergence of new threats and the recognition of additional global challenges will continue to compel the development and promotion of vaccines to combat infectious diseases of military significance.

Labiovak (Lembaga Biologi dan Vaksin) is an Indonesian army organization - sub Directorate of Army Health (Ditkesad) - that produce, research and development of vaccines, sera (serum) and anti-sera. The Indonesian military cq. Labiovak has a long and highly distinguished record of developing effective vaccines also give against pathogens that threaten the armed forces. Many of these vaccines significant benefits to civilian populations around the world. The current requirements for the protect ton of the army personnel's including vaccines against endemic disease threats, against biological warfare or bioterrorism agents, as well as novel or genetically engineered threats. The cost of vaccine development and the modern regulatory requirements for licensing vaccines have strained the ability of the program to maintain this broad mission. Without innovative vaccine technologies, streamlined regulatory strategies, and coordinating efforts for use in civilian populations where appropriate, the military vaccine development program is in jeopardy.

### Beyond Bali: Wonderful Indonesia

Indonesia is not only Bali. Other than the island of Bali, Indonesia has many more attractive places with great diversity and cultural abundance that do not compare less favorably to Bali. While you are in Indonesia, you may not want to miss to visit some of the Indonesia's best-kept secrets.

#### Lombok, West Nusa Tengggara

Lombok is an island east of Bali. Lombok is more like the rest of Indonesia: a sleepy, bucolic landscape of jungle and volcanoes populated by rice farmers, following a way of life so relaxed it can feel like a film in slow motion. Precisely because it is so different, Lombok makes a good counterpart to a Bali trip. The island offers many empty and often isolated dream beaches, friendly and interesting people, tasty food and fantastic nature. Senggigi, Kuta, Sasak village, Gili islands, the turquoise sea and white sand of Tanjung Aan, Pink Beach, and the second highest volcano of Indonesia Mount Rinjani are among tourism spots you cannot miss when you visit Lombok.

#### Komodo Island, East Nusa Tenggara

Komodo is a small island located between the Sumbawa and Flores islands, east of Bali, of about 280 square kms. It is famous for it giant lizards, the Komodo dragons, believed to be the last of their kinds remaining in the world today. The Komodo dragon (Varanus komodoensis), which is called "ora" by the local people, is actually a giant monitor lizard, growing up to 3 to 4 meters in length, and its ancestors roamed the earth up to about half a million years ago. Komodo live mostly on goats, deer, cows, and even the carcasses of its own kind. The fishing villages who live on the island say that they receive extra income by breeding goats to feed the lizards. The Komodo is protected by Indonesian Government. Komodo island is a now a nature reserve, home to a number of rare bird species, deer and wild pigs, which are prey to lizards as well.

#### Yogyakarta, Central Java

Yogyakarta is the capital city of the Yogyakarta Special Region in Central Java and also can be known interchangeably as Jogjakarta or Jogja. Wedged strategically between two powerhouse of ancient temples – Prambanan the magnificent Hindu temple and Borobudur the renowned Buddhist temple, this place holds more wonders than just that. You can explore the main streets and narrow alleys for hidden treasures of bygone days, taste the best Javanese food and soak yourself in history, art and culture. Unsurprisingly, it is one of the major tourist hub in Indonesia, due to its uniqueness and all the tourist attractions, sightseeing places and many things to do all packed into one.











#### Mount Bromo, East Java

Bromo has been known worldwide for its spectacular view of sunrise, when the sun appears in between mountains which features an extraordinary beautiful view. Visitors travel from a far to Bromo in East Java, to capture one of the most amazing nature scenes as its finest at dawn. They also can see the view down to the mist-filled crater, experience walking on the sand sea and amidst the cold air. The vast sand sea reaches right from what is supposed to be the volcano's ancient crater, right to Bromo's peak. If you travel from Malang, the nearest biggest city, the main gate to the sand sea and found Mont Bromo is through Cemorolawang, about two hours by a four-wheel car drive from the city. There are many activities that can be enjoyed in this area such as camping, walking, horse riding, and even four-wheel drive adventures across the barren sea of sand. The get to the peak of Bromo with its largely open crater with blowing smoke from its base, visitors must cross this vast sand mass.

Mount Bromo's greater area has been settled by Hindu Tenggerese for a thousand years. They area faithful followers of their gods and practice their century-old custom strictly, a tradition passed down from the Javanese Hindu Kingdom of Majapahit. Anthopologist from many countries became interested in carrying out research on the Tenggarese culture, on how they managed to keep their traditions intact. There are many aspects of life of the Tenggarese community that attracts scientists; from folktales written on lontar leaves called serat and kidung, old legends and historical scientific date.

#### Lake Toba, North Sumatra

Lake Toba is one of among the world's most famous crater lakes, for its beauty and historical background. The  $100 \times 30 \text{ km}$  massive lake was the result of an ancient super volcanic eruption around 70,000-75,000 years ago. According to the 'Toba theory' presented by historians, geologists and volcanologists, the massive explosion killed plants, animals and human worldwide, to such an extnt that there were merely less than 10,000 people survived globally. Those ten thousand modern humans are the ancestors of every human race today.

The crater lake is located in the Batak highlands, approximately a five-house drive from Medan, the capital of North Sumatra. Toba is the largest lake in Southeast Asia, featuring a vast collection of water surrounded by tall mountain ranges with a large island of Samosir in the middle. The island actually is the emerging volcanic peak rising from the bottom of the crater. If we descend from the mountain, we could see the surface glittering in all its beauty.

#### Tana Toraja, South Sulawesi

Safely protected beyond the lofty mountains and rugged granite cliffs of Sulawesi's central highlands are the Toraja people who live in valleys that are lush with green rice terraces and fertile coffee plantations. "Discovered" and opened to the world from their long isolation only since the beginning of the last century, the Toraja today still adhere to the age-old beliefs, rituals and traditions, although any of its people have modernized or embrace Christianity. Toraja is well-known for its elaborate funerals ceremonies that can take days and involve entire villages. These are not only moments for mourning but are moreover even to renew family ties and to sensure continued unity among villages and communities.











May 20<sup>th</sup>, 2015 - Safari VW Tour Safari VW, Ubud Market, Ubud Royal Palace, Laka Leke Ubud



















May 20<sup>th</sup>, 2015 - Cultural Tour Barong Kris Dance, Ubud Rice Terrace, Bali Cultural Center, Monkey Forest

















### **Public Corner**

We want to hear your comments on "What do you think about the 41st ICMM World Congress on Military Medicine in Bali - Indonesia, what is the most important thing it has given you?"

Send your comments max. 35 words by email to ika.nazaruddin@pactoconvex.com by today not later than 4 p.m Please mention your name, country, and include your one best photo taken during the Congress to accompany your comments.

Interesting comments will be published in the final issue of Congress Daily News tomorrow.