INDONESIA RESEARCH PARTNERSHIP ON INFECTIOUS DISEASE

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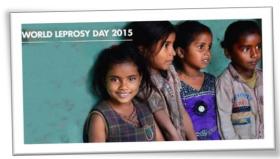
NEWSLETTER

Issue #16 January 2015

IN THIS ISSUE

WORLD LEPROSY DAY

by Dedy Hidayat S.



Did you know that Sunday, January 25, 2015 is World Leprosy Day is celebrated all over the world on the last Sunday of January to focus attention and create awareness on Leprosy.

Background

Leprosy is one of the oldest diseases known to humankind. It is also known as Hansen's disease, named after the Norwegian physician, Gerhard Henrik Armauer Hansen, who debunked the prevailing notion of the time that leprosy was a hereditary disease. He showed that the disease had a bacterial cause instead (bacterium Mycobacterium leprae).

For thousands of years, people with leprosy have been stigmatized and considered to be at the extreme margins of the society. The aim of World Leprosy Day is to change this attitude and increase public awareness of the fact that leprosy can now be easily prevented and cured. Moreover, it also creates a stream of prayer and support for those affected by leprosy. To quote from Mother Teresa, "The biggest disease today is not leprosy or tuberculosis, but rather the feeling of being unwanted".

Origin of the World Leprosy Day

For over half a century, on the last Sunday of January, many people across the globe have stopped to remember those who suffer the dire and dreadful effects of leprosy.

In 1953, a great humanitarian, M. Raoul Follereau of France, proclaimed the first World Leprosy Day to call attention to the plight of the world's millions of people affected by this ancient, devastating disease. Its first observence was in 1954 and is currently observed by more than a hundred countries. This year, World Leprosy Day will fall on January 25.

During the year 2012, a global total of 232,857 new leprosy cases were detected, 6231 more cases than 2011. With emphasis on early case finding, it can be expected that reporting on new cases will increase. Among WHO regions, this increase is seen mainly in the South-East Asia and African Regions (Indonesia: 22,390 registered prevalence, 18,994 new case detection, and 194 relapses).

Source: http://searo.who.int/entity/leprosy/data/data2012/en/

http://www.leprosy.org/world-leprosy-day/



Many receive "happy holidays" greetings in December, near the end of the year, as we take our leave to have some quality time with our loved ones, families, and friends. In this occasion, most of us decide to travel out of town or even out of the country on a long vacation. In relation to health and travel preparation, what are the things you should know? Find out here!

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New Year is here and it is knocking at our door. It is time we say goodbye to the year 2014 that has become our history and welcome the year 2015. Reflecting on 2014 from the world health and infectious diseases point of view, we bring you a recap of three interesting diseases that became an outbreak at some time in 2014. Find the information in this edition.

Studies' Progress and Updates

by dr. Anandika Pawitri, dr. Herman Kosasih,

Ms. Mila Erastuti,

dr. Nugroho Harry Susanto,

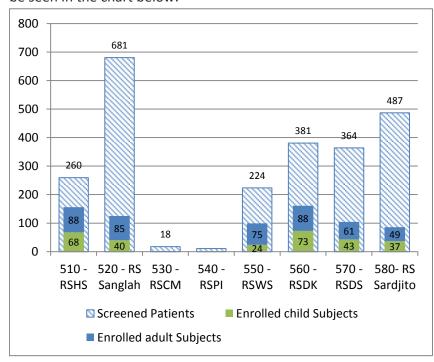
dr. Nurhayati.



Picture 1 Lab Training, Bogor, October 2014.

AFIRE STUDY

Good news! 2 sites from Jakarta (RSUPN dr Cipto Mangunkusumo and RSPI Prof Dr Sulianti Saroso) have recruited subjects as of the first week of December 2014. Up to December 28, from 2,426 screened patients, 735 subjects have been enrolled (436 adults and 299 children). Description of screening and enrollment progress can be seen in the chart below:



Detailed screening and enrollment progress is available in portal folder: Studies\INA101\Screening progress.pdf or go to the following link:

https://ina-respond.s-3.com/EdmFile/getfile/797233

*510- RSUP dr Hasan Sadikin, Bandung

520 - RSUP Sanglah, Denpasar

530 - RSUPN dr Cipto Mangunkusumo, Jakarta

540 - RSPI Prof Dr Sulianti Saroso, Jakarta

550 - RSUP dr Wahidin, Makassar

560 - RSUP dr Kariadi, Semarang

570 - RSUD dr Soetomo, Surabaya

580 - RSUP dr Sardjito, Yogyakarta

For further information on this study, go to:

http://www.ina-respond.net/afire-study/

SEPSIS Collaboration of INA-RESPOND and SEAICRN in Sepsis study titled "An Observational Study of Causes, Management, and Outcomes of Community-acquired Sepsis and Severe Sepsis in Southeast Asia" has started to show its progress. We are hoping Indonesia will start recruitment in February 2015.

The Secretariat is currently planning a two-batch Site Preparation Visit (SPVs) at each site. We are doing this to ensure all study topics and training materials are provided and covered comprehensively within an adequate time frame. The first SPV batch in Makassar is scheduled to take place on January 8-9, 2015, and the second batch is scheduled around the end of January 2015.

The study Protocol final version 2.0 dated

TRIPOD

October 15, 2014 was approved by NIHRD IRB on November 7, 2014. The study Informed Consent Form version 2.1 dated November 17, 2014 was approved by NIHRD IRB on December 3, 2014.

Case report form (CRF) final version 2.0 was made based on inputs from a small TB meeting held on November 25, 2014 and other inputs from data management team. This version is dated December 11, 2014 and has been finalized and approved by study PI, NIHRD, and NIAID.

The Monitoring Plan INA102 version 2 dated November 28, 2014 has been uploaded and available on the portal link:

https://ina-respond.s-3.com/edm/index/819382.

Birthdays and Celebrations!

JANUARY

- 7 January Ms. Wiwik Lestari (INA101 Lab Technician at site 560)
- ♣ 12 January dr Mohammad Rosyid Ridho (INA102 Research Assistant at site 560)
- ♣ 13 January dr Aravinda Pravita Ichsantiarini (INA102 Research Assistant at site 590)
- ♣ 19 January dr Yan Mardian (INA101 Research Assistant at site 580)
- 24 January Mr. M. Alfian (INA101 Lab Technician at site 530)
- ♣ 25 January dr I Made Gede Dwi Lingga Utama, Sp.A(K) (INA101 Co-PI at site 520)
- 27 January dr Ida Safitri, Sp.A(K) (INA101 Co-PI at site 580)



ReDEFINe STUDY

was involved on the study initiation visit and will

Under this study, INA-RESPOND

be involved on the study monitoring and DSMB. The study DSMB committee consists of the following: Prof. Rianto Setiabudy (chair), Dr. Iwan Ariawan (member), Dr. Jofizal Jannis (member) and Dr. Sean Emery (member). The first face-to-face DSMB meeting was held on November 26-27, 2014.

The study site started screening and one subject was enrolled on December 16. It is expected that the 1st Site Monitoring Visit (SMV) will be conducted mid-January 2015.

HIV/ AIDS While the preparation for our Treatment for Prevention in the Communities (TROPIC) is underway, Gus Cairns published a summary regarding the barriers that could stop HIV treatment becoming HIV prevention, based on a symposium session at the recent HIV Research for Prevention. He mentioned three barriers, the problem of recent infection, drug resistance and testing, stigma and disclosure for particular populations.

People with recent infection transmit at least 20-50% of HIV infections, according to model estimation. As it takes time for viral load to fall, recently infected people would not become instantly non-infectious if they took treatment. Therefore, post-diagnosis behavior change should be emphasized. The occurrence of drug resistance depends on patient adherence and the efficacy of treatment in suppressing viral load. High rates of treatment might not bring down the incidence if the number of people with HIV in some populations continues to grow. These populations need better access for testing, support to eliminate the stigma, and protection from violence.

Save The Date

Interim Analysis Meeting

The Interim Analysis Meeting will be held on <u>February 4-5, 2015</u> at Hotel Harris, Bekasi on jalan Raya Bulevard Ahmad Yani Blok.M, Jawa Barat



The network Annual Meeting will be held in the first week of March, 2015.

Network Steering Committee Meeting

The next NSC Meeting will be held in March, 2015. Date and venue have not been determined. We will be sending emails to the participants to inform the dates once they are available and confirmed.

FOR MORE INFORMATION

Please contact Mr. Dedy Hidayat or Ms. Yayu Nuzulurrahmah at +62 21 42879189 ext. 102 or 112 during office hours (08.00 – 16.00)



TRAVEL MEDICINE

by dr. Herman Kosasih

The rates of international travel continue to grow substantially, with an unprecedented 1 billion travelers worldwide crossing international boundaries in 2012. To prevent illnesses and injuries occurring to travellers going abroad and manages problems arising in travellers when they come back, travel medicine, a new multidisciplinary specialty, emerges.

Historically, the first travel-related article found in Pubmed was published in 1952. However, the first Conference of International Travel Medicine was conducted in 1988, and the first International Society on Travel Medicine (ISTM) was founded in 1991. Six years later, the Indonesia Travel Health Society, or in Indonesian called Perhimpunan Kedokteran Wisata Indonesia (PKWI), was established. Prof Suharto, one of our Steering Committee members, is currently the chair of PKWI for East Java.

The focus of travel medicine is on vaccination and protection against infectious diseases since travel medicine is intended for travelers visiting tropical countries. Moreover, it covers much broader aspects such as providing guidance on how to manage dizziness, jet-lag, travel fatigue, nausea, vomiting, airplane ears, shortness of breath, diarrhea, etc. Consequently, the clinicians must have good understanding in all medical fields including epidemiology, toxicology, adventure, aviation, and sport medicine. Clinicians must be updated with the epidemiology of the diseases in the destination



countries because they have to be aware whether travel warning or ban is issued as an outbreak is occurring. The cholera outbreak in Bali in 1981 and



bird flu 2005, for examples, reduced the number of tourists coming to Indonesia. Clinicians must also have good understanding on the changing patterns of drug-resistant infections so that they can administer accurate medication.

Currently, travel medicine specialist also has to provide guidance for those who go to extreme places such as high altitude mountains, volcanoes, north or south poles, and maybe in the future to MARS as thousands of people have applied to go there. \odot

Travel Medicine and Research

INA-RESPOND is a research network. As such, we also have to mention the research in travel medicine. Several high-quality studies to investigate questions within travel medicine have been conducted. However, Talbot et al (2010) reported research were still needed to expand the evidence base so that recommendations could be proposed. Several examples are: 1) How should new antithrombotic agents be incorporated into guidelines for travelers? 2) Which repellants are more likely to be used appropriately by travelers and under which circumstances? 3) Is the repeated or long-term use of permethrin and other insecticides safe in the ways that travelers use them (e.g., on clothing)? 4) Do travelers who develop traveler's diarrhea take their standby antibiotics appropriately? 5) What is the role of travelers in spread of emerging infections such as Chikungunya fever? These studies are feasible to be conducted as millions of people travel every year.

For more information regarding travel medicine, several links are listed below:

www.cdc.gov/travel/ http://www.istm.org/index.asp

2014 in REVIEW

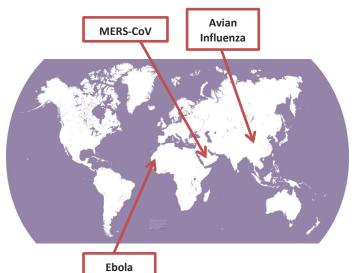
by dr. Herman Kosasih and dr. M. Karyana

Without overlooking many other infectious diseases (such as dengue, tuberculosis, malaria) that are still prevalent and causing significant problems, three became the highlights in 2014.

Middle-East Respiratory Syndrome Coronavirus (MERS-CoV)

The first case was identified in a 49-year-old man who suffered from acute respiratory syndrome in September 2012 in Saudi Arabia. A novel coronavirus

was detected from this fatal case. The International Committee on Taxonomy of Viruses decided to call the new coronavirus Middle-East Respiratory Syndrome Coronavirus (MERS-CoV). Bats appears to be the natural host, and recent work links dromedary camel to the primary source of the MERS-CoV infecting humans.



In 2014, MERS-CoV cases were persistently identified every month in several countries. As of November 2014, the World Health Organization (WHO) informed a total of 941 laboratory-confirmed cases of MERS-CoV infection, including 347 deaths (36.8% fatality rate). Although MERS-CoV does not spread in a sustained person-to-person, the potential danger is the possibility of the virus to mutate into a strain that does transmit from person to person.

Avian Influenza Virus

Avian influenza (AI) refers to influenza causes by viruses adapted to birds. Among many subtypes of AI viruses, only several have been pathogenic in humans. Some of which are A(H5N1), A(H7N9), A(H9N2), and A(H5N6).

The first case of influenza A(H5N1) virus subtype, a highly pathogenix AI virus, was found in 1997 during a poultry outbreak in Hongkong SAR, China. In 2014, 27 cases from 5 countries including Indonesia were reported to WHO.

The A(H7N9) first infected residents of Shanghai in March 2013. Since the first case, 2 major epidemic waves (in 2013 and winter 2013/14 –waned off by the end of spring 2014) with sporadic cases have continued until now. The virus has no capacity to sustain the human-to-human transmission.

As for the A(H9N2) and A(H5N6), there were only a few cases reported in 2014.

Ebola Virus

The 2014 Ebola outbreak in West Africa is the largest Ebola outbreak in of history. As early December, more than 20,206 cases and 7,905 deaths have been reported. The Ebola virus spreads through direct contact with body fluids from an infected person. There are no approved

drugs, but early care can improve survival.

Beginning in 2003, NIH developed and supported human testing of 3 experimental Ebola vaccines. Twenty volunteers between the ages of 18 and 50 participated in the clinical trial, which took place at the NIH Clinical Center in Bethesda, Maryland. Ten received lower dose and 10 received higher dose vaccines. All 20 volunteers produced anti-Ebola antibodies within 4 weeks of receiving the vaccine. Antibody levels were higher in those who received the higher dose vaccine.

The vaccine also prompted creation of protective immune cells called CD8 T cells. Four weeks after vaccination, CD8 T cells were detected in 2 volunteers who had received the lower dose and 7 who had received the higher dose vaccine.

No serious side effects were seen in any of the volunteers. This study reveals that this experimental vaccine was well-tolerated and produced immune system responses. Based on these results, researchers are planning further studies to assess the

safety and effectiveness of the vaccine

Reference: Chimpanzee Adenovirus Vector Ebola Vaccine - Preliminary Report. Ledgerwood JE, DeZure AD, Stanley DA, Novik L, et al. *N Engl J Med.* 2014 Nov 26. [Epub ahead of print]. PMID: 25426834.

HAPPY NEW YEAR 2015!

by Dedy Hidayat S.

Dear colleagues and friends,

It is time we say goodbye to the year 2014 that has become our history. As we start the New Year, we can gain courage by looking at the good aspects of our past and the glimmers of good fortune that lie in our future.

Believe me when I say that we will have many challenges ahead of us and that our faith might waver. Nonetheless, if we are to be prepared for it, we must first shed our fear of it. Standing here and looking back, I realize that we are where we are now not because of the path that lies before us but because of the path lies behind us. All our hard work, tears, and sweat created the path that has brought us here to this moment.

New Year is not about changing the dates, but the direction. It is not about changing the calendar, but the commitment. It is not about changing the actions, but the attitude. I am confident that over the next twelve months, we will continue to make much progress for our network, individually and collectively as a unit. How do I know? Because we have always dug deep into our heart and found the spirit and discipline to move forward and to never yield.



So, this New Year we are going to adjust our point of view and channel all our efforts to keep going, making necessary improvement and arrangement to build a solid and excellent network while gaining courage every step of the way. And I hope that we can look back years from now to this year and reflect not only on how well we do professionally but also on how well we treated others. Let's raise our glass... to a wonderful year ahead, 2015!

"Learn from yesterday, live for today, hope for tomorrow." —Albert Einstein

"Year's end is neither an end nor a beginning but a going on, with all the wisdom that experience can instill in us. Cheers to a new year and another chance for us to get it right." —Oprah Winfrey

INA-RESPOND
Newsletter

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