INA RESPOND
INDONESIA RESEARCH PARTNERSHIP ON INFECTIOUS DISEASE

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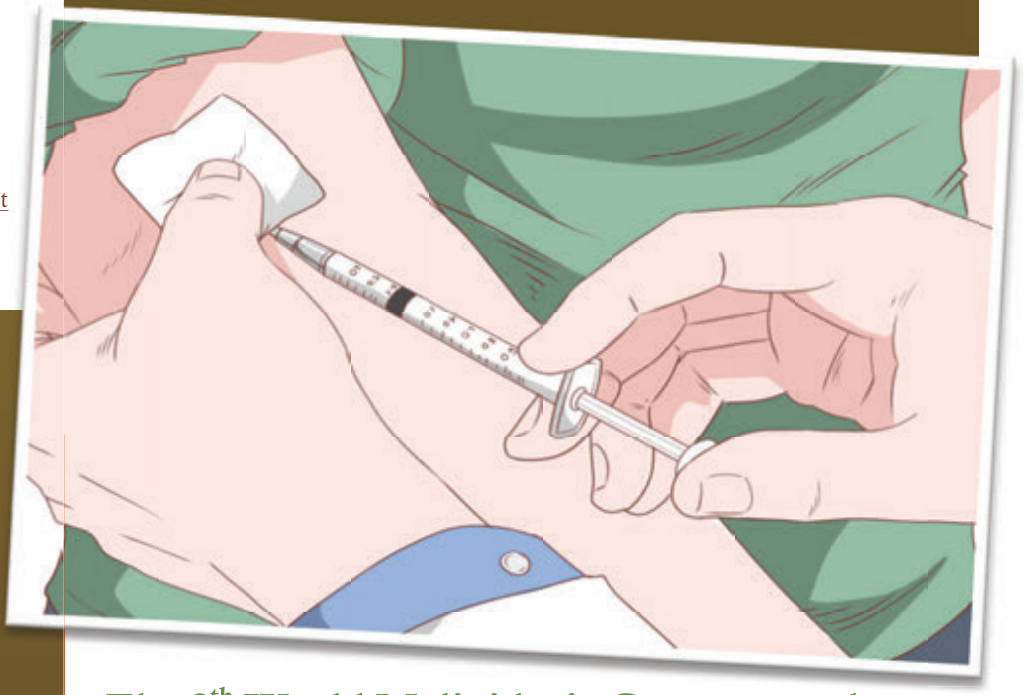
Newsletter September 2016



In This Issue

The 8th World Melioidosis Congress and Things That We Should Know about Melioidosis

The disease was first identified on morphine addict in Myanmar back in 1911. Reports of a disease with similar symptoms later occurred in Thailand, Singapore, Malaysia, Cambodia, and North Australia. The diseases even infected much of the American and French soldier during the Vietnam war.

Melioidosis is extremely dangerous because it could lead to blood poisoning, pneumonia, liver, kidney, prostate, saliva gland, and spleen inflammation. Moreover, the bacteria that caused the disease could remain dormant in the host's body for years. Record showed that the disease's mortality rate could reach up to 70 percent.

Knowing the severity of the disease, we should learn as much information as possible. Find out in this month's newsletter.

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The Fairy Tale of Scientists and Open Access Policy

Are you a researcher? Are you trying to make an impact in the world of health? How can you successfully achieve this? Find out in this newsletter.

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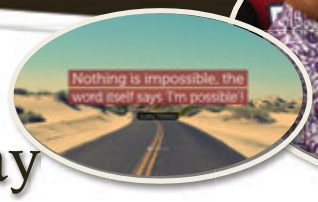
Save The Date

Important Events & Meetings

12 September	Idul Adha Holiday
14 September	Network Steering Committee Meeting
15 September	AFIRE Study Meeting



September Birthday

5 Sept	drg. Tince	NIHRD
7 Sept	Ms. Ennycke Sary	LT INA101 Site 550
10 Sept	dr. Herman Kosasih	Secretariat
14 Sept	Ms. Ernawati	LT INA101 Site 510
17 Sept	dr. Anis Karuniawati	Protocol Co-PI INA102
	dr. Luthvia Annisa	RA INA101 Site 580
19 Sept	dr. Fatmawaty Ahmad	RA INA101 Site 550
	dr. Munawir	RA INA101 Site 550
26 Sept	Ms. Kanti Laras	Secretariat
	Ms. Tugur Ariyani	LT INA102 Site 590
28 Sept	Ms. Sri Hariastuti	LT INA101 Site 570

Announcement

Great news! We have a new Information Technology (IT) Specialist to help the network with its daily activities and give IT-related support to all network sites.

Our new IT Specialist, Mr. Erry Algiffary, will be working together with our other IT Specialist, Mr. Dwi Arie Pramanto.

Should you require any information or assistance related to IT, please feel free to send them an email to inaitsupport@ina-respond.net

By dr. Anandika Pawitri,
dr. Nurhayati

AFIRE Study (INA101) Updates

A total of 1,492 subjects (864 adults and 628 pediatric) has been enrolled from 5,214 screened patients. Since the enrollment process for all sites finished on June 30, 2016, we predict that the last enrolled subject will complete the study mid-October. The study is currently performing diagnostic testing to identify etiologies in all cases using PCR 16s RNA, virus and bacterial panel (PCR, Serology), and other methods at reference lab.

A – Site 510 – RSUP dr Hasan Sadikin, Bandung
B – Site 520 – RSUP Sanglah, Denpasar
C – Site 530 – RSUPN dr Cipto Mangunkusumo, Jakarta
D – Site 540 – RSPI Prof Dr Sulianti Saroso, Jakarta
E – Site 550 – RSUP dr Wahidin Sudirohusodo, Makassar
F – Site 560 – RSUP dr Kariadi, Semarang
G – Site 570 – RSUD dr Soetomo, Surabaya
H – Site 580 – RSUP dr Sardjito, Yogyakarta

Detailed screening and enrollment progress is available in portal folder: Studies\INA101\Screening progress.pdf or go to the following link: https://ina-respond.net/EdmFile/getfile/797233

Sepsis Study (SEA050) Updates

Two manuscripts from this study are on their way to be completed. The first manuscript by dr Dr Direk titled Causes and Outcomes of Sepsis in Southeast Asia is aiming for the Lancet Journal. There are 1,582 subjects enrolled from 3 countries. Thailand and Viet Nam reached their enrollment target (750 subjects [325 children and 325 adults] per country). Indonesia enrolled 82 subjects [16 children and 66 adults]. As many as 1,864 distinct clinical presentations were made. Acute respiratory infection was the most frequent clinical presentation with pneumonia as the highest number of cause. It is interesting as 60% of children and 48% of adults were identified using hospital diagnostic kit and study kit. More than 90% of subjects diagnosed with severe sepsis did not survive.

The other manuscript which is titled Management of Severe Sepsis in South East Asia Hospitalized Patients Related to Outcome is being prepared by dr. Khie Chen's team. This manuscript is focusing on observing sepsis management based on Survival Sepsis Campaign 2021 in severe sepsis subjects from 3 countries.

Report: The 8th World Melioidosis Congress

By:

dr. Patricia M. Tauran
dr. Dewi Lokida

Melioidosis is an often fatal infectious disease caused by the environmental bacterium, *Burkholderia pseudomallei.* Melioidosis is often misdiagnosed because it causes a wide range of symptoms which often mimic those of other tropical diseases. Diagnosis requires high suspicion/recognition by physicians and confirmation by isolation of *B. pseudomallei* from any clinical specimen (blood, urine, sputum and pus.) However, isolation and identification of *B. pseudomallei* require specific microbiology facilities and experienced microbiologists. The mortality rate of untreated patients could be up to 90%, and many die before the diagnosis is made. Thus, the burden of this disease is largely hidden.

University of Florida - Emerging Pathogens Institute host the 8th World Melioidosis Congress (WMC) 2016 in the Philippines. The congress was held at Radisson Blu Hotel in Cebu City in Central Philippines from August 7 to 10, 2016. In the WMC, we learned current knowledge in all important aspects of melioidosis. The congress highlighted recent developments of melioidosis research under the theme "One Health", a paradigm used to promote better understanding of melioidosis in three aspects: human health, animal health, and environmental health. The congress assembled a great range of clinicians, health professionals, policy makers, and laboratorians from at least 20 different countries. The congress also gave the participants opportunities to create a network with melioidosis experts from different parts of the world.

In the congress, Indonesia was represented by dr. Dewi Lokida and dr. Patricia M. Tauran. Dr. Patricia presented her poster "Emergence of Melioidosis in Indonesia" and received some suggestions from world melioidosis experts. They were very helpful and would support assistance in making melioidosis better-known in Indonesia because melioidosis in Indonesia ranked second based on the predicted mortality of melioidosis worldwide from a journal in *Nature Microbiology*.

In addition, there was a pre-congress workshop on August 6-7, 2016 which was attended by dr. Patricia. This workshop included a full day training course "Melioidosis 101", and a half day workshop on laboratory diagnosis and drug susceptibility testing. The training course was suitable for clinicians and laboratorians who are new to melioidosis research from tropical countries like Indonesia, where melioidosis is underreported.

Indonesia is believed to be one of the endemic countries of melioidosis in Southeast Asia. However, information about melioidosis among Indonesians is very limited. Therefore, we hope we can raise public awareness of melioidosis in Indonesia by proposing a melioidosis study in Indonesia.

Melioidosis Facts

By
dr. Patricia M. Tauran

Dr. Pat and Dr. David

What is melioidosis?

Melioidosis, also called Whitmore's disease, is an infectious disease caused by bacteria known as *Burkholderia pseudomallei,* that can infect humans or animals. It is predominately a disease of tropical climates, especially in Southeast Asia and northern Australia where it is widespread. The bacteria live below the soil's surface during the dry season, but after heavy rainfall they are found on the surface of water and mud, and may become airborne.

How is it spread?

The bacteria that cause melioidosis usually enter the body via cuts and sores on the skin or via inhalation of dust or droplets, and very rarely by ingestion of contaminated water. The disease has been found among some domestic farm animals. Melioidosis does not usually spread from one person to another or from animals to humans.

What are the symptoms?

The symptoms of melioidosis depend on the site of the infection and this can vary.

- Localized Infection: localized pain or swelling, fever, ulceration, abscess
- Pulmonary Infection: cough, shortness of breath, chest pain, high fever, headache, anorexia
- Bloodstream Infection: fever, headache, respiratory distress, abdominal discomfort, joint pain, disorientation
- Disseminated Infection: fever, weight loss, stomach or chest pain, muscle or joint pain, headache, seizures

It is important to note that melioidosis has a wide range of signs and symptoms that can be mistaken for other diseases such as tuberculosis or more common forms of pneumonia.

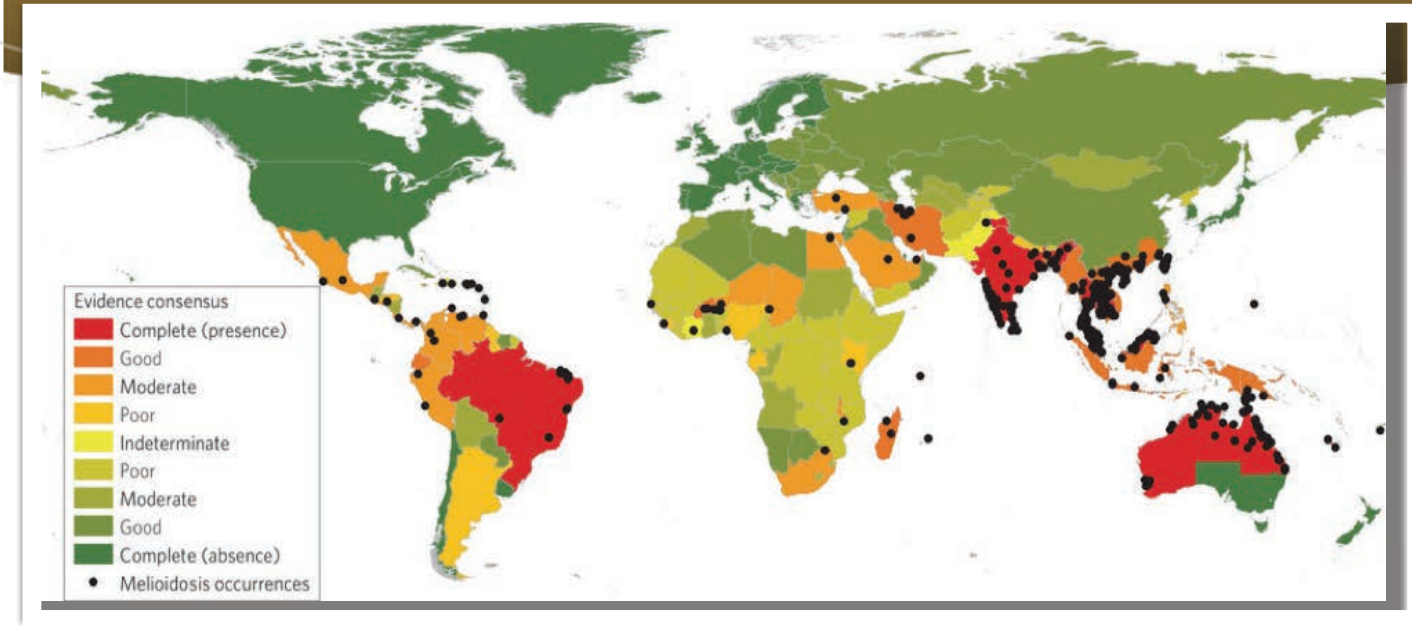
The time between an exposure to the bacteria that cause the disease and the

(continued)

GOVERNMENT

Training on how to identify *B. pseudomallei* accurately and safely in all available microbiological facilities should be provided, and consideration should be given to making melioidosis a notifiable disease in Indonesia

Dr. Bart Currie and Dr. Pat



Country coloring is based on evidence-based consensus, with green representing a complete consensus on absence of *B. pseudomallei* and red a complete consensus on presence of *B. pseudomallei*. Black dots represent geo-located records of melioidosis cases or presence of *B. pseudomallei*.

emergence of symptoms is not clearly defined, but may range from one day to many years; generally, symptoms appear two to four weeks after exposure.

The diagnosis of melioidosis is made by growing the bacteria with laboratory testing of blood, sputum, urine, or a swab from an abscess or non-healing ulcer.

Who is at risk?

People most at risk are those with conditions such as diabetes, heavy alcohol consumption, kidney disease, chronic lung disease, and cancer; and those on immunosuppressive therapy including steroids. Healthy people can also get the disease if they work in muddy soil without good hand and feet protection.

What is the treatment?

Treatment generally starts with intravenous (within a vein) antimicrobial therapy for 10-14 days, followed by 3-6 months of oral antimicrobial therapy.

Antimicrobial agents that have been proven effective against melioidosis include:

Intravenous therapy consists of:

- Ceftazidime administered every 6-8 hours **OR**
- Meropenem administered every 8 hours

Oral antimicrobial therapy consists of:

- Trimethoprim-sulfamethoxazole taken every 12 hours **OR**
- Doxycycline taken every 12 hours

The type of infection and the course of treatment will impact long-term outcome. It is important to complete all antibiotics to prevent a relapse.

How can melioidosis be prevented?

- People with open skin wounds and those with diabetes or chronic renal disease are at an increased risk for melioidosis and should avoid contact with soil and standing water.
- Those who perform agricultural work should wear boots, which can prevent infection through the feet and lower legs.
- Health care workers can use standard contact precautions (mask, gloves, and gown) to help prevent infection.

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http://www.nature.com/articles/nmicrobiol20158

The Fairy Tales of Scientists and Open Access Policy

By

dr. Aly Diana

Being an academia or living as researchers, and calling ourselves scientists, especially in Indonesia, creates another great adventure in our lives. Using an analogy, I would say that it feels like driving through a long winding road with great scenery as far as the eyes can see, when we keep going. It is difficult to make a decision to follow the road, and it is more difficult to stay on the road, but when we fight enough and stay long enough, the journey will be very rewarding.

Talking about rewarding, in contrast, the cartoon presented here is a very depressing one. Nevertheless, to some extends it captures the real life of scientists. The scientific world values each other mostly based on the number of published papers and number of citations to those papers. Only by publishing and spreading the results of our works can we get recognition from other scientists and claim that we belong to that society. More citations usually mean that our work is a very interesting/ novel/ helpful/ controversial one. Moreover, we also have to admit that 'citations' will lead into more connections and supports for our research in the future.

As we know, publishing a paper is a combination of long-standing hard work, rigorous thought, commitment, writing skills, and many more; then when it is published we also want the best out of it. However, getting citations is another story. There is a big rumor that if we can publish in high impact/ prestigious journals, we will automatically get a lot of citations. Sadly, it is not fully true. Although articles in high impact journals have large audiences; they still have lesser audiences compare with open access articles. When we learn the theory of probabilities, we know that the larger the audiences, the larger the opportunities are. Free access always attracts more crowds. A study shows that open access articles were cited 50-300% more often than non-access articles from the same journal and year, because of wider reach and increased visibility of open access articles.

Consequently, this makes publishing in an open access journal our aim. Be mindful, though, as this requires a large amount of money. We can draw up a budget for this when we create our research proposal. In addition, we can also do **self-archiving**, which is depositing a free copy of our published articles on the author's or institution's website to provide open access to the articles. Most journals (around 80%) of subscription based journals allowed their authors to do so. Majority of journals agree on giving a permission of immediate self-archiving upon acceptance for publication, while some others impose a 6-to-12-month embargo. Moreover, we can also 'brag' about our success story of being accepted by a prestigious journal in the institution website, social media, conferences, or any other social groups. Those simple acts, can also endorse the citation numbers, or at least make new connections with people with the

same interest, which is a bonus.

With this article, I would also like to remind myself that we are doing studies, being (struggling) scientists, or living as researchers because we realize that: 1. we are doing important things and 2. we are doing those things to improve the communities and the environment. Therefore, doing a rigorous study is really essential as a starting point, and writing a decent publication as well as getting the study the attention that it deserves is really our obligation. Although the discussion about the number of citations sounds like a self-centered act, it is actually not. As the recognition is growing, the attention to the issue that we raised is increasing as well. When more good people put interest in our topic, hopefully, better outcomes will arise from it. Then, those outcomes will be our reward.

Closing remarks: Please do a good study, so we can write paper(s) about it! Please write good paper(s), so we can get a lot of citations! Please get a lot of citations, so we can get more recognition! Please get more recognition, so we can attract good people to do good things together! Collaborative actions usually have bigger impact on communities.

Note: To check whether the journal allows **self-archiving** or not, we can check it in this website: http://www.sherpa.ac.uk/romeo/index.php

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INA-RESPOND Newsletter

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