INA RESPOND
INDONESIA RESEARCH PARTNERSHIP ON INFECTIOUS DISEASE

INA-RESPOND Secretariat

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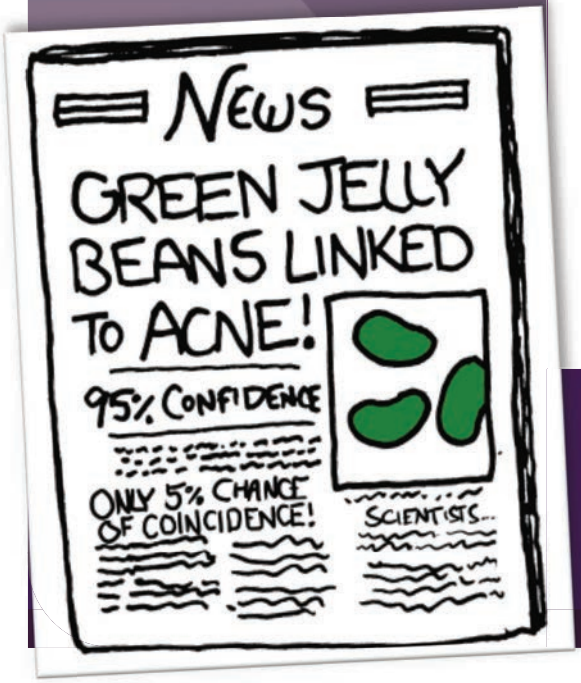
Newsletter July 2016

In This Issue



World Hepatitis Day 2016

Hepatitis C virus infects hundred thousand people every year. Hepatitis C is one of the main causes of liver cirrhosis and liver cancer, and around 16 million people currently have chronic hepatitis C in the Eastern Mediterranean region alone.

Although WHO has called new direct acting antiviral treatment that can cure hepatitis C to be made accessible for those who are living with chronic hepatitis C, the price of this new generation treatment is very high.

People living with hepatitis C and those at risk, including health care providers, and their civil society supporters must take an active role with their governments in stepping up the demand for treatment. So far, the best way to reduce the number of infection is to prevent us from getting it in the first place. Find out how we can do it on this month's newsletter.

Page 5

My Dear p-Value, Should I Trust You or Should I Not?

Do you know what p-Value is and do you know what it means? If you are not sure about it, this article is perfect for you. Find out the information in this newsletter.

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Save The Date

Important Events & Meetings

4 – 8 July	INA-RESPOND Secretariat, Jakarta is closed for the Eid ul'Fitr
28 July	World Hepatitis Day

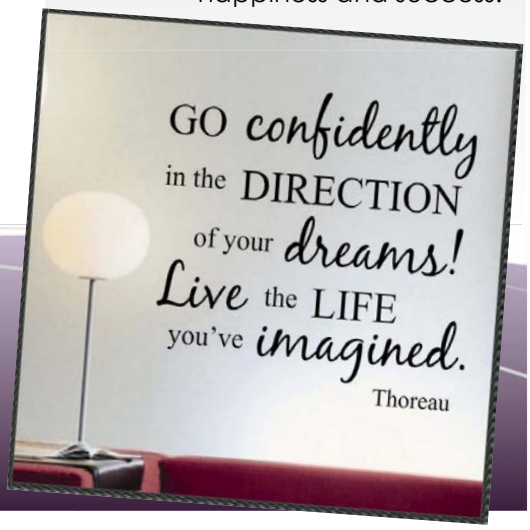
July Birthday

8 July	dr. Fadila Zitria	RA INA101 Site 540
11 July	Ms. Dwi Sri Winarti	LT INA101 Site 580
12 July	Ms. Evi Hindawati	LT INA10 Site 540
13 July	dr. Suratno L. Ratnoglik	RA INA101 Site 530
31 July	Prof. Dr. Pratiwi Sudarmono	SC Member at Site 520
31 July	dr. Yuli Mawarti	RA INA101 Site 580

Announcement

It is with mixed feeling that I inform you that as of this month, dr. Indri Hapsari Putri, our INA101 Research Assistant is no longer helping us with our studies. She is leaving us to continue her study. We wish you best of luck in your study.

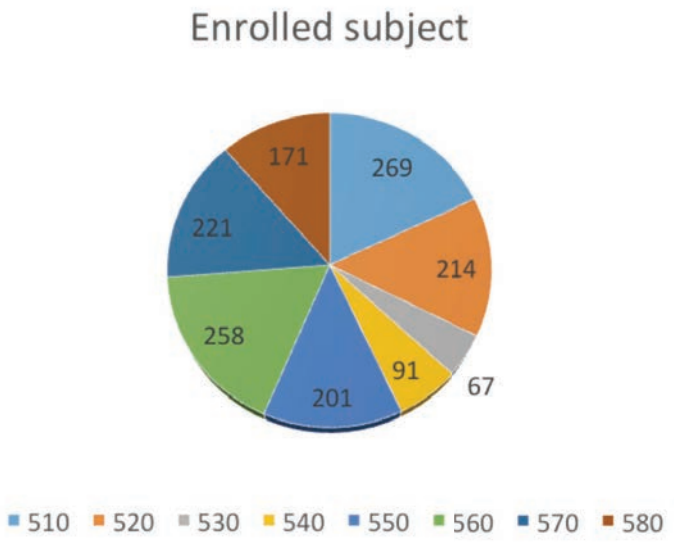
In addition, one of our Site Specialist, Ms. Novitasari, is also leaving us this month to pursue her dreams. On behalf of the Secretariat, we wish you great happiness and success.



INA-RESPOND Study

AFIRE Study (INA101) Updates

By dr. Anandika Pawitri,
dr. Nurhayati,
Ms. Novitasari



The AFIRE enrollment activities ended on 30 June 2016. Total number of enrolled subject is 1,492 (864 adult and 628 pediatric) from 5,214 patients screened. Site 510 – RS Hasan Sadikin, Bandung enrolled the most subject for this study with 269 subjects.

RAs are expected to continue the follow-up depending on patient's symptom

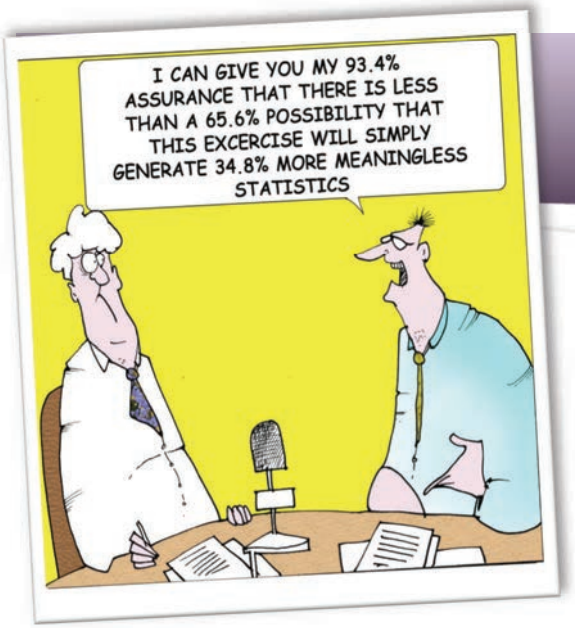
Laboratory examinations for undiagnosed specimen are being conducted to determine etiology in reference laboratory.

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

All endpoint data have been collected; the query and quality assurance/quality control (QA/QC) processes have been completed; and the database has been locked. This database will be analyzed and will provide a great resource for manuscript writing. Manuscript is being prepared by dr Khie Chen from site 41 – RS Cipto Mangunkusumo, Jakarta based on interim data analysis. The focus of the manuscript is sepsis management.



My dear p-Value, should I trust you or should I trust you not?

By:

dr. Aly Diana

Frankly, I used to set my eyes on p-Value first every single time I looked at result of any scientific articles. I believe that the p-Value will directly tell me whether the result is significant and worth a further look or not. However, many scientists, especially statisticians, state that p-Value often leads to a misleading conclusion of a study. They even suggest discarding p-Value and using other statistical measures for data interpretation, such as effect size and 95% confidence interval.

First, let us check whether our understanding of p-Value is already correct. What is p-Value? *P-Value* is commonly used to test (and dismiss) a 'null hypothesis'. It helps us to make a conclusion that there is no difference between two groups or that there is no correlation between dependent and independent variables. *P-Value* shows that the probability of an observed set of values (what we found) would occur by chance, while assuming that the null hypothesis is true.

The bad news is that *p-Value* is often misinterpreted as the probability that the null hypothesis is true. **Thing to remember**: a p-*Value* of 0.05 does not mean that there is a 95% chance that a given hypothesis is correct. Instead, it signifies that if the null hypothesis is true, and all other assumptions made are valid, there is a 5% chance of obtaining a result at least as extreme as what we observed/found from our data.

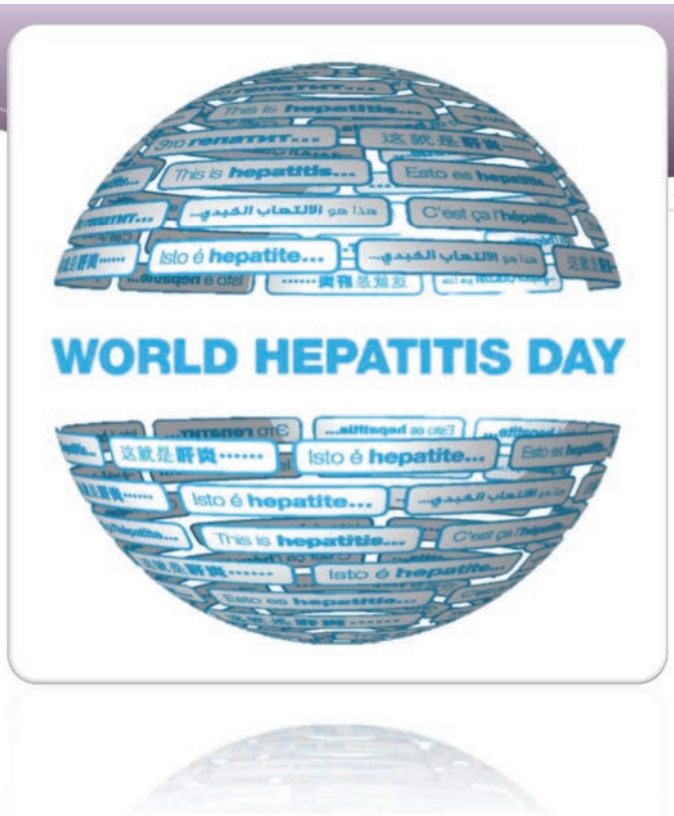
Another thing to consider, p-Value really depends on the sample size or the statistical power of the study. If statistical power is limited, regardless of how high or low the *p-Value* we got, a repetition of the same experiment/study will likely result in a substantially different *p-Value*. Increasing sample size increases statistical power, and thus increasing the proportion of obtaining *p-Value*s < 0.05.

In addition, p-Value (by itself) cannot answer our most common research questions: "What is the effect of the independent (exposure) to the dependent variable (outcome)? How big is the difference, or how strong is the relationship or association?". *P-Value* cannot show the importance of a finding (or its effect size); for instance, a drug can have a statistically significant effect of reducing patients' blood pressure without having any significant therapeutic effect.

However, we have to be fair and not blaming the p-Value. The researchers need to know the strengths and the weaknesses of p-Value (and the statistical tests) to be able to make a correct/true inference from the data that have been analyzed. Plausibility of the hypothesis and following the assumptions of every statistical test are extremely important. Actually, we can put all the variables that we want inside a model, do one click, and the statistic software can give us a significant result (presented with p-Value < 0.05). Therefore, to make informed judgments about our study, we must understand what the *p-Value* is telling us and how to interpret it.

Remarks:

As the old saying says "Don't judge the book by its cover"; we may also say "Don't judge the result by its p-Value". Hopefully the discussion in this comic corner will increase our curiosity to read or understand more about the p-Value and other statistical tests.



World Hepatitis Day 2016

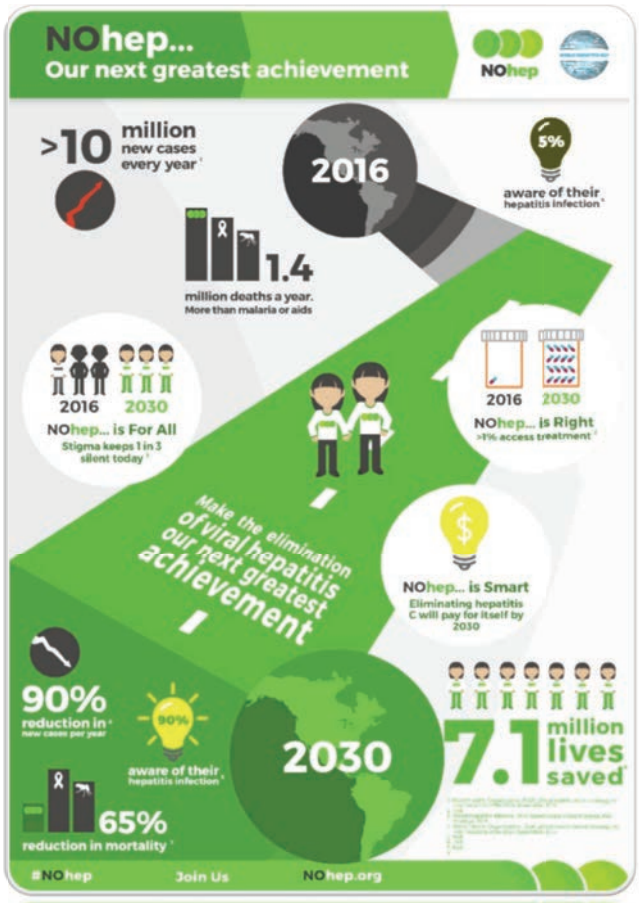
By
dr. Caleb Leonardo Halim
dr. Isabella Puspa Dewi

In 2010 World Health Organization (WHO) declared July 28 as the Day Hepatitis world, World Hepatitis Day is one of eight official global public health campaigns marked by WHO. Viral hepatitis affects hundreds of millions of people worldwide, causing acute and chronic liver disease and killing close to 1.4 million people every year, mostly from hepatitis B and C. It is estimated that only 5% of people with chronic hepatitis know of their infection, and less that 1% have access to treatment. Viral hepatitis affects 400 million people globally and, given the size of the epidemic, anyone and everyone can be at risk.

In the Southeast Asian region, it is estimated 100 millions people are living with chronic hepatitis B, and 30 millions people are living with chronic hepatitis C. Every year in this region, Hepatitis B causes nearly 1.4 million new cases and 300,000 deaths. Meanwhile, Hepatitis C causes approximately 500,000 new cases and 160,000 deaths.

Hepatitis is an inflammation of the liver, most commonly caused by a viral infection. There are five types of hepatitis viruses, known as A, B, C, D, and E. Hepatitis A and E are typically caused by ingestion of contaminated food and water. Hepatitis B, C, and D occur as a result of parenteral contact with infected body fluids.

Some people are at higher risk to get hepatitis A (HAV), such as those who:



(continued)

- Travel to or live in countries where HAV is common
- Have sexual contact with someone who has HAV
- Are men who have sexual encounters with other men
- Use recreational drugs, whether injected or not
- Have clotting-factor disorders, such as hemophilia
- Are household members or caregivers of a person infected with HAV

Certain groups are at particularly high risk of Hepatitis B (HBV) infection. These include those who:

- Have unprotected sex with multiple sex partners or with someone who's infected with HBV
- Share needles during intravenous (IV) drug use
- Are a man who has sex with other men
- Live with someone who has a chronic HBV infection
- Are an infant born to an infected mother
- Have a job that exposes you to human blood
- Travel to regions with high infection rates of HBV, such as Africa, Central and Southeast Asia, and Eastern Europe

Certain things may increase your risk of becoming infected with the Hepatitis C (HCV). Some of them are:

- People who had blood transfusions
- Health care workers who suffer needle-stick accidents
- Injection drug users
- Infants born to HCV-infected mothers
- People with high-risk sexual behavior, multiple partners, and sexually transmitted diseases.
- People who snort cocaine using shared equipment
- People who have shared toothbrushes, razors and other personal items with a family member that is HCV-infected

Recommendations for screening for HAV infection

Routine testing for HAV infection is not recommended. Persons with signs or symptoms of acute HAV infection (jaundice, abdominal pain, vomiting, elevated liver enzymes) should be evaluated for acute HAV infection with anti-HAV IgM.

Recommendations for screening for chronic HBV

1. All adults ≥18 years of age who were born or lived in countries where the rate of chronic hepatitis B virus infection is ≥2% (intermediate or highly endemic countries), and who have no documentation of a negative HBsAg on the overseas medical forms.

2. All adults, ≥18 years of age, who were born or lived in countries where the rate of chronic hepatitis B virus infection is <2% should be tested as above only if they belong to a high-risk group.

3. Screening pregnant women for HBsAg is particularly important.

People for whom HCV screening is recommended:

1. Adults born from 1945 through 1965 should be tested once.
2. HCV screening is recommended for those who are currently injecting drugs/ ever injected drugs, prior recipients of blood or organ transfusions, and have certain medical

condition such as HIV patient, hemodialysis patient, etc

3. HCV screening is recommended for all health workers after needles stick to HCV-positive blood.

4. Newborn babies with HCV- positive mother.

Even though Hepatitis B and C lead to high morbidity and mortality, with the advancement of science in the field of medicine the new drugs have been found to reduce the complications that may occur and even cure patients with hepatitis.

People with Hepatitis A usually improve without treatment. Once your recover from Hepatitis A, your body develops antibodies that protect you from the virus for life.

For hepatitis B, patients need antiviral drugs such as; Lamivudine and entecavir, as well as medicines to boost immune system/ immunomodulatory like Interferon alpha and PEG Interferon. Treatment aims are to stop the hepatitis B virus from multiplying, or to reduce the rate of multiplication as much as possible.

Treatment for Hepatitis C is also using immunomodulatory and antiviral drugs such as; ribavirin. You're considered cured if you don't have any virus in your blood 6 months after you stop taking medicine.

Although hepatitis A virus infection rarely causes serious complications, some complications may still occur, such as relapse hepatitis and cholestasis

Having a chronic hepatitis B virus infection or hepatitis C virus infection can lead to serious complications, such as:

- Liver Cirrhosis
- Acute liver failure
- Hepatocellular carcinoma

Considering the terrible effects of hepatitis and its difficult treatment, it will be much easier if we can avoid getting hepatitis infection in the first place. The following are some ways we all can do:

1. Hygiene.

Transmission of HAV can be greatly reduced by washing your hands before eating. Avoid foods and drinks that come from source that are not hygienic. Hygiene does not affect the effectiveness of HBV and HCV transmission.

2. Vaccination

Vaccines are highly effective to prevent HAV and HBV. For newborns whose mothers were infected with HBV, vaccine should be given within 12 hours. Unfortunately, the vaccine for HCV is yet to be found.

3. Condoms.

The use of protective equipment during intercourse with a partner who is infected with HBV and HCV is crucial because body fluids such as semen and vaginal fluids can transmit viral hepatitis. The use of condom has no affect on HAV as it is transmitted through the digestive tract.

4. Avoid sharing needles, razors, toothbrushes, and nail scissors.

Avoid sharing these tools with people with hepatitis B and C because Hepatitis B and C virus can be transmitted through blood left on these tools.

5. Faithful with only one sexual partner.

Having multiple sexual partners increases the possibility of transmission of HBV and HCV.

After all of the explanations, we can conclude that hepatitis is preventable and treatable. There are effective vaccines and treatments for HBV. However, it is very rare that any of these medications will cure HBV

infection. On the other hand, over 90% of people with HCV can be cured with treatment. The vision of eliminating hepatitis as a public health threat by 2030 can be achieved if people and countries affected by this disease were better equipped and enabled to "know hepatitis" and "act now".

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Thanks to : INA-RESPOND Network and Partners

We would like to hear from you. Go ahead and send us your scientific articles, team profile, or feedback about the newsletter to INA.Secretariat@ina-respond.net