## Symposium 1: Dengue Management Update

All questions were answered during conference

## Symposium 2: Malaria Management Update

**For:** Dr Giri
**Question:** Role of malaria rapid  antigen test in resource limited setting eg district clinic/hospital?
**From: L**iyana
**Answer:**
At the moment it's good for human malaria but not sensitive enough for knowlesi

**For:** Dr Giri
**Question:** In limited resources and remote area setting. Any role of presume Malaria treatment with IV Artesunate while waiting for BFMP results and if the results is negative. Should we continue the IV Artesunate for at least 3 doses although the BFMP results remain negative.
**From:** Zulhilmi
**Answer:**
Malaysia is equipped with microscopic services in malaria endemic area. Please do communicate with the microbiologists to relook the slides if patient is clinically malaria

**For:**Dr Jenarun
**Question:** What is the Malaysian data on antimalarial resistance?
**From:** Liyana
**Answer:**
From our Drug Response Surveillance, we do have cases of delayed parasite clearance, but so far there has not been reported drug resistance to ACT in Malaysia

**For:** Dr Jenarun
**Question:** As macaques are commonly seen in some residential area, any role of host control to reduce the transmission risk or is it strictly illegal to reduce its numbers? Doesn't seem like endangered species.
**From:** Zainal
**Answer:**
Macaques are protected species under the Wildlife Conservation Act (2010). Laws of Malaysia Act 716

**For:** Dr Jenarun
**Question:** Regarding host control, any collaboration with wildlife department in controlling the macaques.
**From:** Zulhilmi
**Answer:**
MOH is collaborating with the wildlife department of possible intervention in cases of macaques-human conflicts (eg. macaques causing property damage or macaques attacking human). In such situation the wildlife department may do trapping and relocation of macaques.

## Symposium 3: Typhoid/ Melioidosis

**For:** Dr Low Lee Lee
**Question:** Which antibiotics is better for eradication phase, doxycycline or augmentin, if patient developed AKI/ cytopenias due to TMP/SMX?
From: Liyana
**Answer:**
To Liyana . Thanks for the question. Bactrim is the best option in eradication phase, in situation where Bactrim is absolutely contraindicated, the alternative is Augmentin, but watch carefully for a relapse. MERTH study shows Doxycycline has no significant activity.

**For:** Dr Low Lee Lee
**Question:** How to strategize ceftazidime therapy in suspected case meloidosis but culture no growth and serology pending?
**From:** Farhan
**Answer:**
To Farhan, Thanks for your question. 1) I don't routinely send serology as Burkholderia pseudomaliei is not fastidious to grow. If culture (blood, pus, tissue or sputum whichever is relevant) is negative, patient is stable, I would de-escalate or switch to non-pseudomonas agent and watch closely 2) In patient with unexplained deep seated abscess, with risk factors, eg DM, farmers, strongly suspecting melioidosis while waiting for drainage, you may empirically treat as melioidosis and send for serological test. Hope I answer to your question.

**For:** Dr Low Lee Lee
**Question:** In neuro meliodosis, how long is the eradication therapy with meropenem.
**From:** Hazwan
**Answer:**
Dear Hazwan, in CNS melioidosis, Royal Darwin suggests 8 weeks of intensive antibiotics, but the duration of antibiotic may be shortened if there is adequate drainage of abscess, eg craniectomy and evacuation of abscess. Likewise, if patient has slow response, sometimes the duration may be longer, it varies from case to case. Meropenem is the preferred choice based on observation study. Personal practice : I would switch to ceftazidime and

cotrimoxazole  when patient is stable, showing sign of improvement : eg clinical, radiological or CRP improvement

## Symposium 4: Mycobacterium Update

**For:** Dr Racheal
**Question:** In your opinion, should primary care physician champion on latent TB treatment as one way to reduce TB reactivation in the community, especially targeting the high risk grp such as diabetics?
**From:** Anonymous
**Answer:**
Thank you for the question. While it's true that latent TB treatment is primarily done in government primary health care clinics, it still has to be a collaborative effort. Public health inspectors who help us with contact tracing need to strengthen contact tracing efforts and bring the at risk population for screening, promotion for LTBI and TB is needed and paediatricians also play a big part in helping to manage the paediatric population at the initial stage.

**For:** Dr. Rachael
**Question:** What do you think of using MySejahtera to assist in contact tracing for TB social contacts? As they might not be aware of the person in their social circle is infected with TB.
**From :** Liyana
**Answer:**
Thank you this is actually something I asked my JKN during our POA meeting too.😅Unfortunately while replicating the same efforts used in covid could be promising it involves a lot of man power. TB control group is not able to meet the demand. Because remember even if we use Mysejahtera someone still needs to take the history and arrange for appointment and more often then not home visits are needed to collect the contact info....hopefully virtual methods can be used more

**For**: Dr Rachel
**Question**: Is HIV test routinely done for all patients before LTBI treatment (as per guideline from the slide) and the rationale behind it?
**From :** Han Hua
**Answer:**
Thank you for the question. No, like in the algorithm testing is not needed to treat a PLHIV for LTBI, but at times for data collection, testing for LTBI in PLHIV may be needed or if patient refuses treatment then it is important to test them to ensure they do not have LTBI already.

**For:** Dr Rachel
**Question:** What is your opinion about treating HCWs with LTBI?
Is there any benefits on treating them with repeated exposures to patients with active PTB?
**From:** Anonymous
**Answer:**
Very good question. A person who has been tested and treated for LTBI does not need repeated testing and treatment but rather needs symptomatic screening and treatment for TB if indicated. Once IGRA is positive it will be positive long term even after LTBI treatment. But studies have shown 5 years and 10 years follow up showed clients who were treated for LTBI did not progress to TB. HCW will be tested with IGRA not TST

**For:** Dr Zamzurina
**Question:** If sputum TB gene Xpert indeterminate to rifampicin, do we add injectables or extend the intensive phase till the MTB culture result available
**From:** Arisah
**Answer:**
Indeterminate Xpert is not equals to resistant. Have to look at MTB load/result: very low, low, medium or high. If MTB low/very low it means not enough sample to run for the for 4 panel allele. However, if MTB medium or high, have to alert MKAK, and repeat MTB C&S and LPA. It maybe resistant TB but not present in the allele in the Xpert panel.
Have to assess the overall patients clinical, radiological improvement if we want to change or prolonged the training

**For:** Dr. Zamzurina
**Question:** In persistent smear positivity and minimal to no clinical improvement, when would you advocate sending for GeneXpert or Sputum LPA , when sputum culture result is still not available yet.
**From:** Zainal
**Answer:**
If smear 1+, 2+, 3+, advisable to send for LPA. We can know Rif and INH resistant.
If smear is 0 or scanty, better to send Xpert. In the future, once XPERT MDR/XDR available, we can send for Xpert only

**For:** Dr. Zamzurina
**Question:** Do IMR use bedaquiline for MDR TB ? Are we getting it anytime soon?
**From :** Liyana
**Answer:**
Yes. IPR has started on bedaquiline regime since 2017

**For:** Dr. Zamzurina
**Question:** What is your opinion on shorter duration of antiTB?
**From :** Liyana
**Answer:**
The latest study using rifapentine/moxi 4 months treatment showed non inferior to EHRZ regime. Recommended by WHO to use it in 2020 but our TB NTP is not ready for it yet

**For :** Dr Zamzurina
**Question:** Is it necessary to send MTB culture every 2 months despite patient clinical & radiological improvement after treatment and AFB smear already negative?
**From :** Faisol
**Answer:**
MTB culture is only sent in the beginning of treatment and when patient is not responding to treatment, i.e persistent smear positive/suspect acquired resistant

**For :** Dr Zamzurina
**Question:** Any guideline how to do VOT during intensive phase?
**From :** Najla
**Answer:**
Yes. The guidelines of VOT is out by sector TB KKM. How to get it 😅😅.. have to ask JKN

**For:** Dr. Zamzurina
**Question:** In patient with disseminated tuberculosis whose imaging has new/worsening abscesses, especially if CRP increasing, but local culture (pus/tissue) is negative, do we extend intensive phase/restart intensive phase or do we extend the maintenance phase?
**From :** Liyana
**Answer:**
The abscesses is confirmed TB? Or should we revised the diagnosis 😄

**For :** Dr Zamzurina
**Question:** Any suggested duration of treatment for extrapulmonary NTM infection?
**From :** Han Hua
**Answer:**
I still give  minimum 1 year treatment based on clinical assessment

## Symposium 5: COVID-19 Management Update

**For:** Dato Dr Ker
Question: Any opinion on 3rd booster dose for covid vaccination? Will it reduce severity as covid strains kept evolving and since we do get less severe cases recently (hopefully apply to all)
**From:** Su Fui
**Answer:**
KKM guidelines only 2nd booster, no 3rd booster recommendation for now

**For:** Prof Sharifah
**Question:**
Recent paper in Crit Care Med by Peterson et al shows baricitinib has no difference in mortality but significantly fewer adverse effects (secondary infection, thrombotic events, acute liver injury) when compared to tocilizumab in severe COVID.
What is your opinion on this paper? Should we use baricitinib more in our clinical practice?
**From:** Liyana
**Answer:**
Thank you for highlighting this paper that came out earlier this month which I had unfortunately missed when I was doing my lit review for this talk. It is a very recent paper and if I am not mistaken, most of the guidelines have not incorporated the findings in their guidelines either.

Nevertheless, it is still an important paper with new insights on the use of Baricitinib and Tocilizumab for severe COVID-19.

Strength of the paper- it tried to eliminate biases of a retrospective analysis by doing PSM. However when looking at the numbers, I wonder if there are still biases that may indicate sicker patients were given Toci or whether it is just the preferences of the researchers to use Bari?

For example, only 291 patients received Toci vs 655 given Bari. Was this due to inavailability of Toci, or a general guideline to use toci in sicker patients or just the preference of investigators in Georgia?

65% of those in the Toci group were in ICU at baseline compared to 40% from the Bari group. Indicating sicker patients from the Toci group. Eventhough this 'bias' was reduced with the PSM method, I can't help noticing that there were more patients in the Toci group with a score of 7 on the OSD1 (54 patients) compared to 32 patients in the Bari group. Eventhough this was not significantly different, the p value was 0.07. If the Toci group patients were sicker, then this may also have an impact on the adverse effects. Other factors may also contribute to the AE which cannot be looked at with this retrospective study.

Therefore, I believe that we really need an RCT comparing Bari vs Toci to make a good conclusion on which agent is better to reduce mortality without compromising on the AE. I

feel that this paper has at least given some assurance that mortality may not be worse in those given Bari, especially when Toci is not available or cannot be used for other reasons.

**For:** A/P Sharifah Faridah
**Question:** Can Paxlovid be used in early phase covid cat 4 requiring oxygenation but the hypoxia is due to comorbids?
**From:** Farhan
**Answer:**
I think this is a decision to be made by the physician on a case by case basis. It can be very difficult to distinguish hypoxia due to COVID-19 or due to other causes eg. AEBA, fluid overload etc. Corresponding inflammatory markers, CXR findings and other investigations to support the 'other diagnosis' may be helpful.
If the physician is certain of this (ie hypoxia not due to COVID-19), then there's no real 'harm' to try Paxlovid other than the side effects of Paxlovid.
On another note, if the physician does not think the hypoxia is due to COVID-19, then the Category of illness should really be 'Cat 2' and not Cat 4.

## Symposium 6: Japanese Encephalitis & Leptospirosis

**For:** Dr Murni
**Question:** Some cases have positive lepto rapid test but negative/equivocal MAT/PCR. Is this due to Rapid Test Kit developed by other country and it pickup their common serovars rather than Malaysia local serovars?
**From:** Nik Mohd Hafiz
**Answer:**
Rapid bed side diagnostics tests are a reasonable alternative to overcome the inherent issues with MAT. Lepto rapid test kit is designed as a screening tool that can detect early immune phase of leptospirosis **that should be ideally followed by a paired sera** for microagglutination test (MAT) to look for seroconversion or a four-fold rise in titre before concluding the lepto rapid test as false positive result. However, paired sera is unavailable for majority of the cases leaving the final diagnosis uncertain in regard to leptospirosis.
Furthermore, studies has shown that positive Leptospira rapid test has a low positive predictive value of leptospirosis, owing to the low specificity of the test.
Despite MAT having low sensitivity and low value as a clinical diagnostic tool in acute stage, the test allow patient's sera to be subjected to a long list of 24 live Leptospira serovars panel in contrast to a single/limited serovar in the rapid test format. Therefore MAT is useful if paired sera is available. Hence IMR is continuously revising the MAT panel to improve the sensitivity of the test utilizing locally important and relevant serovars for Malaysia setting.

**For:** Dr Murni
**Question:** MAT was usually done after rapid test positive. If 1st MAT is equivocal, after how many days it is suggested to repeat 2nd sample? Some cases refused to take another sample after been discharge leaving the classification stuck as probable.
**From:** Nik Mohd Hafiz
**Answer:**
The best sample for MAT is between 7-10days of illness. However, acute and convalescent serum samples collected 7–14 days apart is ideal for MAT. (CDC recommendation)

**For:** Dr Murni
**Question:** Hantavirus infection is also rodents associated and present similarly like leptospirosis and can present with pulmonary haemorrhage/renal or heart failure. I have seen quite several severe "leptospirosis" with positive exposure history to rodents, have negative lepto PCR or insignificant MAT later when result are traced made me wonder is there other real culprit. Has IMR frequently receives samples to test on hantavirus PCR and has there been any positive result? What are the best time of disease to send for hantavirus PCR and if serology is available in IMR (in IMR form only PCR available)
**From:** Chun Sien
**Answer:**
While hantavirus infection is relatively rare in Malaysia, IMR did receive samples for hantavirus PCR testing, albeit very infrequently. However, there were no positive results so far.
The best time to collect clinical samples (e.g. blood) for hantavirus PCR analysis is during the acute phase of illness when viremia is present. Notably, hantavirus PCR is a special test that requires consultation with the virology unit IMR in advance before sending over the specimens.
Hantavirus serology is not available in IMR but may be offered by other laboratories, such as Hospital Sungai Buloh. It is advisable to contact your respective pathology department to find out.
It should be noted that a negative leptospira PCR or an insignificant MAT (microscopic agglutination test) result does not completely exclude the possibility of leptospirosis. Every laboratory test has their own limitations and may yield false-negative results. In addition, both the quality of samples and the timing of sampling can affect the test results. Hence, it is essential to correlate with the clinical picture, epidemiological clues, radiological findings, and other laboratory test results in making a diagnosis.

**For:** Dr Murni
**Question:** Should we investigate and test more for hantavirus for patient with severe clinical leptospirosis with pulmonary haemorrhage/ heart failure?
**From:** Chun Sien
**Answer:**
At this point of time, many research at the ground level need to be conducted to ascertain the incidence of hantavirus among patients with clinically severe leptospirosis features. Up

until we have the relevant data, a recommendation and guideline can be made available to assist clinician for management and investigation of such cases.
Hantavirus and leptospirosis are two distinct infections that can cause severe respiratory and cardiovascular symptoms. However, they have different transmission modes, clinical presentations, and diagnostic methods.
Hantavirus is a relatively rare infection in Malaysia. While it may be important to consider other differential diagnoses in patients with severe clinical leptospirosis, routine testing for hantavirus in all cases is NOT necessary. Specific testing for hantavirus should be considered only in cases with a high clinical suspicion of hantavirus infection, such as evidence of exposure to rodents or their excreta and travel history to an area where hantavirus is known to be endemic or outbreaks have occurred. These specialised tests may include PCR, serology, or immunohistochemical staining in tissues.

## Symposium 7: Sharing Experience In Outbreak Control

**For:** Dr Nik Mohd Hafiz
**Question:** About the typhoid outbreak among prisoners - Prisoners with mild typhoid symptoms were treated with T Azithromycin, even though the typhoid was resistant to Azithromycin too. Did the prisoners able to achieve stool culture clearance?
**From:** Dr Ismaliza
**Answer:**
Only 2 patients have both ciprofloxacin and azithromycin resistant, and both have moderate to severe presentation. Both of them were treated with IV ceftriaxone as discussed in the interim guideline (shown below). After completed treatment, both cases have achieved stool clearance.

**For:** Dr Nik Mohd Hafiz
**Question:** Is there any thypoid case in the community prior the case in prison? Any food caterer/ food supplier from outside of the prison were tested (sample taken)?
**From:** Dr Sufi
**Answer:**
There is no typhoid cases in the community within incubation period prior to the case in the prison. There were Typhoid cases in Kelantan community before, but none is Ciprofloxacin Resistant.
For prison A and C, all the food handlers were among to inmates. Only in Prison B (satellite prison) used caterer from outside. All of these food handlers were screened and stool C&S along with Typhidot C IgA were taken. Several of them got Typhidot C IgA positive, which we classified as probable carrier and treated accordingly

## Symposium 8: Rapid Case Review

**For:** Dr Leong
**Question:** What happened to the culled goats at the Farm that Brucellosis was detected?
**From:** Dr Masliza
**Answer:**
They were culled so they died. Please don't eat the meat from these infected animals.

**For:** Dr Leong
**Question:** For asymptomatic brucellosis bacteremia, after treatment, would you advise to repeat blood culture for clearance?
**From:** Dr Cheng
**Answer:**
No

**For:** Dr Leong
**Question**: Is there any risk stratification when assessing exposure to that lab staff in lab when considering postexposure prophylaxis ? Eg. Wearing PPE eg mask , gloves when handling samples.
**From:** Dr Masliza
**Answer:**
Go CDC USA website and do a search for brucellosis. They have a nice chart for risk assessment.

**For:** Dr Yazli
**Question:** Is it possible to get the rapid strip test that your used in your study?
**From**: Dr Cheng
**Answer:**
Possible for study purposes