

CRC TAIPING NEWSLETTER

Issue 5
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Clinical Research Centre, Hospital Taiping




KEMENTERIAN KESIHATAN
MALAYSIA

NIH
INSTITUT KESIHATAN NEGARA
NATIONAL INSTITUTES ON HEALTH

Tahniah

Warga NIH merakamkan
ucapan tahniah atas pelantikan
YBrs. Dr. Kalaiarasu a/l M. Peariasamy
sebagai Pengarah
Institut Penyelidikan Klinikal (ICR),
Institut Kesihatan Negara (NIH),
Kementerian Kesihatan Malaysia,
mulai 15 Februari 2021

YBrs. Dr. Kalaiarasu a/l M. Peariasamy
Pengarah Institut Penyelidikan Klinikal (ICR)
Institut Kesihatan Negara (NIH)
Kementerian Kesihatan Malaysia

ICR
MINISTRY OF HEALTH MALAYSIA
Research that matters to patients

Home death classification during COVID-19 pandemic in Taiping

Cheah Wee Kooi ^{1,2}, Rosilawati Abdul Rani ², Prema Muninathan ², Chua Kin Wei ²

¹Medical Department, Taiping Hospital

²Clinical Research Centre, Taiping Hospital

Information of death is vital for evidence based health planning for a country. In Malaysia there are 2 methods for cause of death certification based on the place of occurrence of the death. Death in hospitals is certified by physicians as medically-certified deaths and death at home are certified by local police station as non-medically certified deaths. Information from both methods is reported to the National Registration Department. However, the cause of death at home are based on 'lay' opinion and inaccurate more than two third of the time¹.

Covid-19 was declared as a pandemic by World Health Organisation on 12 March 2020. The pandemic has caused global curfews to prevent the further spread of Covid-19. By early April, 3.9 billion people were under some form of lock down. Malaysia imposed the Movement Control Order (MCO) under the Prevention of Infection Control Act on 26 March 2020. Lock down measures has led to increased death occurring at home in several countries² but its effect in Malaysia is not known.

We attempted to demonstrate the trend of death at home and hospital admission in the district of Taiping. Statistic from the Hospital Record Office was obtained for the former, and data from the Taiping Police Department was obtained from the latter. Taiping is a semi urban town consisting of a population of 326,476 , with 18.6% aged 60 and above. Health service is mainly provided by government healthcare facilities consisting of a 608 beds secondary referral hospital and 8 health districts.

The average bed occupancy rate (BOR) for this hospital for 2019 is 75%. The BOR was 78% in the month of February 2020, but reduced to 68% and 58% in March and April respectively. Death occurring at home has increased from 69 cases, 86 cases to 100 cases in the month of February, March and April 2020 respectively. 60% of the cause of death recorded from death at home was "sakit tua" (died due to old age).

Having an accurate cause of death is important for health planning and also to learn from the extend of collateral damages occurring during a movement restriction amidst a pandemic. Verbal autopsy (VA) can be applied to increase the accuracy of COD but are subject-ed to recall bias unless it is done as soon as a home death is reported. Currently, VA is conducted by trained medical personnel. We proposed that training of non-medical personnel is needed for a more accurate COD for death occurring at home, especially during the time of pandemic in the future.

References

1. Umami Nadiyah Y, Diana M, Azahadi O, Huey TC, Norzawati Y, Riyanti S. Burden of premature mortality in Malaysia. *Int J Public Health Res.* 2013;3(1):249–56.
2. The Guardian. Coronavirus: real care home death toll double official figure, study says. [cited 15th June 2020]. Available from: <https://www.theguardian.com/world/2020/may/13/coronavirus-real-care-home-death-toll-double-official-figure-study-says>.



List of CRC Taiping publications in 2020

No	Publish Article	Area of interest
1.	Hussin,N. , Lim,A.L., Goh,P.P., et.al., 2020. Updates on malaria incidence and profile in Malaysia from 2013-2017. <i>Malaria Journal</i> , 19-55	Malaria
2.	K.C. See, S.M. Liew, David C.E. Ng, E.L. Chew, E.M. Khoo, C.H. Sam, D. Sheena, Z. Zahilah Filzah, S.Y. Chin, P.Y. Lee, L.P. Tan, Z. Farah Najwa, S. Sabrina, W.W. Them, T. Saipriya, Z.A. Muhammad Zamakhshari, W.K. Cheah , K. Peariasamy, P.P. Goh,* , H. Ibrahim, 2020. COVID-19: Four Paediatric Cases in Malaysia. <i>International Journal of Infectious Diseases</i> 94 (2020) 125–127	Covid-19
3.	Hor C.P. , Narwani H. , Saravanaa N. ,Ooi W.T., Tang X.Y. , Sara Z. ,Singh G.P. , Rosilawati A.R. ,Kunaraj P. , Cheah W.K. 2020. Experience of short-term hydroxychloroquine and azithromycin in COVID-19 patients and effect on QTc trend. <i>Journal of Infection</i> , doi: https://doi.org/10.1016/j.jinf.2020.05.058	Covid-19
4.	Fann,R.J., Vidya,R.R., Chong, H.E., Vaithlingam, I., Christopher, C.W.S. , 2020. Clinical presentations and predictors of mortality for leptospirosis- A study from suburban area in Malaysia. <i>Medical Journal of Malaysia</i> , Vol.5, No.1	Leptospirosis
5.	Ambigapathy S, Rajahram GS, Shamsudin UK, Khoo EM, Cheah WK , Peariasamy KM,Goh PP, Khor SK, 2020. How should front-line general practitioners use personal protective equipment (PPE)? <i>Malaysian Family Physician</i> Volume 15, Number 1	Public Health
6.	Liew SM, Khoo EM, Cheah WK , Kalaiarasu P, Goh PP, Hishamshah MI. 2020. We have to write and share valid and reliable information on Covid-19. <i>Malaysian Family Physician</i> ; Volume 15, Number 1	Covid-19
7.	Nurul Raihan A.K., Narwani H. , Mohd Effendi M.G., Chung W.M. 2020. Meralgia Paresthetica - Importance of Anatomical Knowledge in Diagnosis. <i>Med & Health</i> ; 15(1): 280-287	Clinical
8.	Sin Hong Chew, Irene Looi, Kar-Keong Neoh, Joshua Ooi, Wee-Kooi Cheah , Zariah Binti Abdul Aziz. Clinical outcomes of acute stroke thrombolysis in neurologist and non-neurologist centres - A comparative study in Malaysia. Accepted by <i>Medical Journal of Malaysia</i> on 5 th December 2020.	Stroke
9.	Albert Iruthiaraj Lourdesamy Anthony, Zarifah Zam, Narwani Hussin. A Hospital based study on the local epidemiology of pneumonia including the contribution of Legionella pneumonia. <i>Malay J Med Sci</i> , 2020. 27 (6): 79-88	Respiratory

List of CRC Taiping publications in 2020

RESEARCH

Open Access

Updates on malaria incidence and profile in Malaysia from 2013 to 2017

Narwani Hussin^{1*}, Yvonne Ai-Lian Lim², Pik Pin Goh³, Timothy William⁴, Jenarun Jelip⁵ and Rose Nani Mudin⁶



ria in Malaysia were conducted in Sabah, East Malaysia aims to describe the incidence, mortality and case an Peninsular Malaysia and East Malaysia (Sabah and

reported malaria confirmed cases notified to the ber 2017.

re notified in Malaysia. The cases were mainly con-

Short Communication

COVID-19: Four Paediatric Cases in Malaysia

K.C. See^a, S.M. Liew^b, David C.E. Ng^c, E.L. Chew^d, E.M. Khoo^b, C.H. Sam^d, Z. Zahilah Filzah^a, S.Y. Chin^a, P.Y. Lee^a, L.P. Tan^a, Z. Farah Najwa^a, S. Sabri^e, W.W. Them^a, T. Saipriya^a, Z.A. Muhammad Zamakhshari^c, W.K. Cheah^e, P.P. Goh^{f,g}, H. Ibrahim^g

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^cDepartment of Paediatric, Hospital Tuanku Jaafar, Seremban, Ministry of Health, Malaysia

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ARTICLE INFO

ABSTRACT

ORIGINAL ARTICLE

Clinical presentations and predictors of mortality for leptospirosis - A study from suburban area in Malaysia

Rui Jeat Fann, MRCP^a, Vidya Rubini Rani, MD^b, Huey Ee Chong, MBChB^c, Indralingam Vaithilingam, MRCPUK^d, Christopher Wat Seong Chan, MPharm (Clin Pharm)^e

^aFaculty of Medicine and Health Sciences, University Tunku Abdul Rahman, Bandar Sungai Long, Cheras, Kajang, Selangor, Malaysia, ^bDepartment of Medicine, Taiping General Hospital, Taiping, Perak, Malaysia, ^cClinical Research Centre, Taiping General Hospital, Taiping, Perak, Malaysia

ABSTRACT
Introduction: Malaysia is endemic for leptospirosis with increasing incidence recorded over the years. Perak has recorded one of the highest incidence and mortality of leptospirosis since 2004.
Methods: This is a retrospective study of confirmed

during the monsoon incidence of leptospirosis cases in year 2004 to year 2015. The Mir leptospirosis a not/ publication of guid as well as incre



Letter to the Editor

Experience of short-term hydroxychloroquine and azithromycin in COVID-19 patients and effect on QTc trend

Dear Editor,

We have read the paper on concerns in prescribing COVID-19 treatment in this journal with great interest.¹ With the scale of transmission and mortality risk, there is an urgent need to identify an effective antiviral. Combinational hydroxychloroquine and azithromycin emerge as potential therapy but yielded mixed results from clinical studies²⁻⁵ and raising concerns over cardiovascular safety.^{6,7} We would like to report risk profile, QTc trend and outcomes of 13 COVID-19 confirmed patients admitted to Taiping Hospital, Perak, Malaysia between 21 March 2020 and 13 April 2020, with mild to moderate diseases who were commenced on hydroxychloroquine with without azithromycin.

Diagnosis was confirmed by detection of SARS-CoV-2 from

fection (Stage 2), 30.8% with evidence of pneumonia without needing oxygen support (Stage 3) and 7.7% with pneumonia requiring oxygen support (Stage 4). Half of those symptomatic patients presented with fever, cough and loss of appetite. Baseline blood investigations revealed lymphopenia in 15.4%, and raised C-reactive protein ($\geq 10\text{mg/L}$) in 38.5% among whom three were treated concomitantly for bacteria sepsis with intravenous antibiotics.

During baseline assessment, their mean Tisdale risk score was 7.5 ± 1.45 , with 69.2% at intermediate risk of QT prolongation while the remaining patients profiled as low risk. Their mean baseline QTc interval was 434.7 ± 41.01 ms, with 30.8% having QTc ≥ 450 ms prior to therapy initiation. Fig. 1 illustrated daily progression of QTc interval monitoring. Fig. 1 illustrates QTc interval peaked at day 4 of therapy with 445.9 ± 46.25 ms compared to baseline ($p=0.390$). QT prolongation was detected among 38.5% whom were profiled as low to intermediate Tisdale and normalized after treatment completion or discontinua-

REVIEW

How should front-line general practitioners use personal protective equipment (PPE)?

Ambigapathy S, Rajahram GS, Shamsudin UK, Khoo EM, Cheah WK, Peariasamy KM, Goh PP, Khor SK

Ambigapathy S, Rajahram GS, Shamsudin UK, et al. How should front-line general practitioners use personal protective equipment (PPE)? *Malays Fam Physician*. 2020;15(1):2-5.

Keywords:

atopic eczema, diagnosis, assessment, treatment, education

Authors:

Abstract

The COVID-19 outbreak continues to evolve with the number of cases increasing in Malaysia, placing a significant burden on general practitioners (GPs) to assess and manage suspected cases. GPs must be well equipped with knowledge to set up their clinics, use Personal Protective Equipment (PPE) appropriately, adopt standard protocols on triaging and referrals, as well as educate patients about PPE. The correct use of PPE will help GPs balance between personal safety and appropriate levels of public concern.

List of CRC Taiping publications in 2020

EDITORIAL

We have to write and share valid and reliable information on COVID-19

Su May Liew, Chief Editor, Malaysian Family Physician
 Ee Ming Khoo, Department of Primary Care Medicine, Faculty of Medicine, University of Malaya
 Wee Kooi Cheah, Hospital Taiping, Ministry of Health, Malaysia
 Kalaiarasu Peariasamy, Hospital Sungai Buloh, Ministry of Health, Malaysia
 Pik Pin Goh, Institute for Clinical Research, National Institutes of Health, Ministry of Health, Malaysia
 Hishamshah M Ibrahim, Deputy Director General of Health, Ministry of Health, Malaysia

The world has been grappling with the outbreak of COVID-19 for the past few months. The coronavirus, which was first reported in Wuhan, China has now spread to 82 countries and infected more than 95000 individuals. As of 15 June 2020, there were 10 confirmed cases of COVID-19 in Malaysia.

Med & Health Jun 2020; 15(1): 280-287

<https://doi.org/10.17576/MH.2020.1501.26>

CASE REPORT

Meralgia Paresthetica - Importance of Anatomical Knowledge in Diagnosis

NURUL RAIHAN AK¹, NARWANI H², MOHD EFFENDI MG³,
 CHUNG WM³

¹Department of Internal Medicine, ²Clinical Research Centre, ³Emergency and Trauma Department, Taiping Hospital, Perak, Malaysia

ABSTRAK

Meralgia paresthetica femoral merupakan punca kepada penyakit ini ialah kesakitan dan perubahan sensorial.

ORIGINAL ARTICLE

Clinical outcomes of acute stroke thrombolysis in neurologist and non-neurologist centres – A comparative study in Malaysia

Sin Hong Chew, MRCP¹, Irene Looi, MRCP^{1,2}, Kar Keong Neoh, MRCP¹, Joshua Ooi, MB BCh BAO³, Wee-Kooi Cheah, MRCP¹, Zariah Binti Abdul Aziz, MMED (UKM)⁴

¹Department of Internal Medicine, ²Clinical Research Centre, Seberang Jaya Hospital, Penang, ³Department of Internal Medicine, Taiping Hospital, Taiping, ⁴Department of Medicine, Sultanah Nur Zahirah Hospital, Kuala Terengganu, Malaysia

ABSTRACT

Background: Thrombolytic therapy with intravenous alteplase is a well-established treatment for acute ischaemic stroke (AIS). However, in Malaysia, treatment prescription is often limited by the availability of neurologists. The objective was to compare the outcomes of acute stroke

with intravenous recombinant tissue plasminogen activator (rtPA) within 4.5 hours of symptom onset has been shown to be an effective treatment for AIS. The objective was to compare the outcomes of acute stroke

Original Article

Submitted: 24 Mar 2020
 Accepted: 25 Sept 2020
 Online: 29 Dec 2020

A Hospital-based Study on the Local Epidemiology of Pneumonia Including the Contribution of *Legionella* Pneumonia

Albert Iruthiaraj LOURDESAMY ANTHONY¹, Zarifah Zam², Narwani Hussin³

¹ Respiratory Unit, Hospital Taiping, Taiping, Malaysia

² Microbiology Unit, Hospital Taiping, Taiping, Malaysia

³ Clinical Research Centre, Hospital Taiping, Taiping, Malaysia

To cite this article: Lourdesamy Anthony AI, Zam Z, Hussin N. A hospital-based study on the local epidemiology of pneumonia including the contribution of *Legionella* pneumonia. *Malays J Med Sci.* 2020;27(6):79–88. <https://doi.org/10.21315/mjms2020.27.6.8>

To link to this article: <https://doi.org/10.21315/mjms2020.27.6.8>

Abstract

Background: In real-life practice, only 20% of hospitalised pneumonia cases have an identified etiology. The usage of *Legionella* urine antigen test (LUAT) in developed nations revolutionised case detection rates. Accordingly, our objectives were to study the microbiological

Research services provided by CRC Hospital Taiping

Type of Research Services		2018	2019	2020
NMRR registration	No. of research/Case studies/Clinical audit registered	25	29	15
	No. of research/Case studies/Clinical audit projects with ethical approval	25	29	13
Research consultation	No. of consultations (episodes) provided	118	46	24
Proposal review	No. of proposals reviewed by Hospital Research Review Committee (HRRC)	32	29	14
Publication & presentation submitted to CRC Taiping	No. of application of publication in local/ international journals	2	5	7
	No. of application of oral/poster presentation	3	6	3
Training / Conference	No. of training workshops organised	13	16	7
	No. of Ministry of Health staff trained	275	296	165

Investigator Initiated Research (IIR) in CRC Hospital Taiping

Research Projects and Output		2018	2019	2020
IIR projects	No. of research projects initiated by CRC and/or in collaboration with other institutions	7	7	5
Publications	No. of published articles in local/international journals	2	5	9
Research presentation	No. of oral presentations	0	1	0
	No. of poster presentations	3	5	3

Industry Sponsored Research (ISR) in CRC Hospital Taiping

Feasibility and Clinical Trials		2018	2019	2020
Feasibility	No. of feasibility studies conducted	15	18	8
Clinical trials	No. of on-going clinical trials	11	12	13
	No. of upcoming clinical trials	6	5	2

CRC Hospital Taiping Activities in 2020

In-House CME for CRC Taiping

NO.	Date	Topic	Speaker
1.	15/1/2020	Pengurusan Fail	Pn Zuraidah binti Mamat
2.	11/3/2020	Code blue/Disaster Plan	Hj Abd Razak bin Sabdin
3.	11/8/2020	Standard Precaution	Dr Wong Tin Lit
4.	21/8/2020	Occupational Safety	Dr Muhammad Fikri bin Abu Hasan
5.	28/9/2020	Keselamatan	En Ahmad Khairil bin Sockri
6.	28/9/2020	Taklimat Bahagian Pengurusan	Pn Nor Azilawati binti Salleh Pn Lydiawati binti Irman Kang Pn Melinda binti Saidin Pn Rosnita binti Kamarrudin
7.	11/11/2020	Incident Reporting	Dr Chng Xiao Yuan (James)



ICR Director's Visit to CRC Taiping

ICR Director, Dr Goh Pik Pin made a visit to CRC Taiping on 13th July 2020 before her compulsory pension in August. We have celebrated her birthday in the meeting room of CRC. We wished her all the best in her retirement.



CRC Hospital Taiping Activities in 2020

13th NCCR

In year 2020, we attended the annual NCCR (National Conference for Clinical Research) in the e-platform. All of the staffs have attended the eNCCR online and gained information and knowledge from valuable speakers and fellow researchers all over Malaysia. The conference was officiated by Health Minister YB Dato' Sri Dr. Adham Bin Baba.



Taiping Research Day

Taiping research day was organized by CRC. This was a one-day conference, on 6th October 2020, conducted in the main conference room in The Regency Hotel Seri Warisan, Taiping. The research day was attended by about 50 participants from the hospitals and PKD under Kluster Perak Utara. Participants were given an opportunity to orally present their research on the stage. Prizes were given to the top 3 winners. The conference received good feedback from the participants.



Good Clinical Practice Workshop

A three-day workshop of GCP was organized by CRC Taiping, from 1-3rd September 2020. Four speakers were invited to talk in this workshop. They were Dr Saiful, Mr Chew CK, Pn Yeap LE, and Pn Nabila (NPRA). The program received overwhelmed response of full 30 participants. CRC Taiping wished them good luck and congratulated them on passing the GCP exam.



CRC Hospital Taiping Activities in 2020

ICR Workshop

Introduction to Clinical Research (ICR) is a course organized by CRC Taiping every year. In 2020, we organized it for two times. The first was on 2-3rd March (for paramedic U29 and above), and 5-6th August (for staff P&P category or U41 and above). The participants were from the Northern area of Perak, including both hospitals and PKD. Each course had 45 and 35 participants respectively. These courses received good responses.



Mini ICR

Due to the overwhelming response, all staff of CRC were invited to be the speakers for a mini ICR/Roadshow in Hospital Kuala Kangsar, during 8-9th September 2020. The audiences included Drs, pharmacists, nurses, and paramedics. We received good feedback from the participants



SPSS workshop

Other trainings



This is a 2 days hands on workshop on basic data analysis using SPSS . In 2020, this workshop was conducted 3 times with different groups of participants



CRC Taiping also conducted other training in 2020 such as the Data analysis using excel, Literature search using Pubmed, Endnote, Google form and Manuscript writing workshop

Clinical Research Centre, Taiping

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34000 Taiping, Perak

We are on the web
<http://www.crc.gov.my/crctaiping/>



Research Consultation Clinic

Consultation services to facilitate researchers
in:

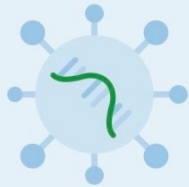
- a) *Research idea - Literature search*
- b) *Research proposal*
 - *Study design*
 - *Sample size calculation*
 - *Statistical analysis*
- c) *Research registration*
- d) *Data analysis*
- e) *Presentation / publication*

Diagnostic testing for SARS-CoV-2 infection



Countries need to test for **SARS-CoV-2** according to the national strategy, using available and approved diagnostic tests. WHO recommends testing of all **SARS-CoV-2** suspected cases.

Types of tests:

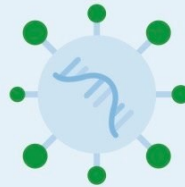


Nucleic acid amplification testing

Detects **genetic material** of the virus

Uses **upper respiratory specimens*** to diagnose **acute SARS-CoV-2 infection**.

Nucleic acid amplification testing (NAAT), for example RT-PCR, is the **reference method for detection of acute SARS-CoV-2 infection**.
Results: usually available **within 24 hours**. Testing takes 30 minutes to 4 hours (depending on the test), but transport to the testing laboratory can add hours to days.



Antigen

Detection rapid diagnostic testing – detects **viral protein(s)**

Uses **upper respiratory specimens*** to diagnose **acute SARS-CoV-2 infection**.

Performance is best within first 5-7 days of symptoms.
Results: within 15-30 minutes, not requiring laboratory infrastructure.



Antibody testing

Detects **antibodies** against the virus

Uses **serum/plasma or whole blood specimens** to detect antibodies generated by **prior SARS-CoV-2 infection or vaccination**.

SARS-CoV-2 antibodies are usually detectable 1-2 weeks after infection or vaccination.
Results: within 24 hours; point of care tests within 10-30 mins.

*Some NAA tests and some Ag-RDTs are designed to work on upper respiratory track samples or saliva
For more information: https://www.youtube.com/watch?v=PhdSdJu_QXI