**Research Related**

**HOSPITAL PERFORMANCE INDICATOR for ACCOUNTABILITY INDICATOR**

**KETUA PENGarah KESIHATAN MALAYSIA**

**DIRECTor GENERAL OF HEALTH MALAYSIA**

Kementerian Kesihatan Malaysia
Arau '12, Blok E7, Kompleks E
Pusat Perkhidmatan Kajian Persekitaran
62590 PUTRAJAYA

Ruj: Tuan:
Ruj.Kami: KKM87/P3/12/6/14 Jld.3 (11)
Tarikh: 22 Januari 2016

**SEPERTI SENARAI EDARAN**

YBhg. Dato’/Datin/ Tuan/ Puan,

PEMUKTAMADAN HOSPITAL PERFORMANCE INDICATOR FOR ACCOUNTABILITY (HPIA) VER. 4.0 & PETUNJUK PRESTASI UTAMA (KPI) PERKHIDMATAN KEPAKARAN DAN SUBKEPAKARAN KLINIKAL VER. 4.0 TAHUN 2016

Adalah saya dengan hormatnya merujuk kepada perkara di atas.

2. Sebagai pihak berwenang, saya menyarankan perubahan dalam indikator untuk KPI Perkhidmatan Klinik Program Perubatan (Kepakaran dan

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**Effective 1 JANUARY 2016**

**Indicator 22**: Percentage of medical officers with completed paper (study/research case report) for postgraduate study application purposes

**Rationale**: Postgraduate students will be required to do study/research during their postgraduate training. A completed pre-postgraduate paper shows the candidates commitment in joining the Master Programme. Thus, it is crucial for the Hospital Director to ensure that only the potential candidates are worth the recommendation. Furthermore, this will be an early exposure and encouragement for the candidates to be involved in research.

**Definition of Terms**

- **Completed paper**: Any study/research conducted or case report done by the Medical Officer whom applying for the Master Programme.
- **Postgraduate**: Refers to Master Programme.

**Criteria**

- **Inclusion**: All Medical Officers who apply for postgraduate programmes
- **Exclusion**: NA

**Type of Indicator**: Rate-based Process Indicator

**Numerator**: Number of Medical Officers with completed paper whom applying for postgraduate programmes

**Denominator**: Number of Medical Officers applying for postgraduate programmes

**Formula**: Numerator / 100% Denominator

**Standard**: ≥ 60%

**Data collection**:
1. **Where**: Data will be collected from the Hospital Director Office/ Training Unit Human Resource Unit
2. **Who**: Data will be collected by the Officer/ staff in charge of the Training/ Human Resource Unit Department or Unit that assigned by

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**CRC’s vision is to become a leading clinical research institution in Asia.**

**CRC’s mission is to improve patients’ health outcomes through ethical and quality clinical research.**
Research Publication/Presentation Approval

According to this guideline, all research conducted in the institute and MOH facilities must register online with National Medical Research Register (NMRR) at www.nmrr.gov.my.

All research that involves ethical aspects must get the approval from Medical Research and Ethics Committee (MREC).

All the dissemination information of the research outcomes (eg: presentation, publication) must get approval from DG of Health.

The circular and guidelines are available online at www.nmrr.gov.my

Flow chart for Research Presentation/Publication Approval

1. Researcher send abstract/manuscript to Hospital CRC for review
2. Abstract/manuscript with cover letter will be send by Hospital CRC to secretariat at nihpub@nih.gov.my
3. DG of Health approval

Industry Sponsored Research (ISR) in CRC Taiping (Until Dec 2016 n=22)

<table>
<thead>
<tr>
<th>Department/Unit</th>
<th>Number of ISR</th>
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<tbody>
<tr>
<td>Endocrine</td>
<td>9</td>
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<tr>
<td>Nephrology</td>
<td>5</td>
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<td>Respiratory</td>
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<td>Paediatric</td>
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### Publication by CRC staffs in 2016

<table>
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<th>No</th>
<th>Title</th>
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A Two-Year Review on Epidemiology and Clinical Characteristics of Dengue Deaths in Malaysia, 2013-2014

Abstract

Background
Dengue infection is the fastest spreading mosquito-borne viral disease, which affects people living in the tropical and subtropical countries. Malaysia had large dengue outbreaks in recent years. We aimed to study the demographics and clinical characteristics associated with dengue deaths in Malaysia.

Methods
We conducted a retrospective review on all dengue deaths that occurred nationwide between 1st January 2013 and 31st December 2014. Relevant data were extracted from mortality review reports and investigational forms. These cases were categorized into children (<15 years), adults (15-59 years) and elderly (≥60 years) to compare their clinical characteristics.

Results
A total of 322 dengue deaths were reviewed. Their mean age was 40.7±19.30 years, half were females and 72.5% were adults. The median durations of first medical contact, and hospitalization were 1 and 3 days, respectively. Diabetes and hypertension were common co-morbidities among adults and elderly. The most common warning signs reported were lethargy and vomiting, with lethargy (p = 0.038) being more common in children, while abdominal pain was observed more often in the adults (p = 0.040). But 22.4% did not have any warning signs. Only 34% were suspected of dengue illness at their initial presentation. More adults developed severe plasma leakage (p = 0.018). More than half (54%) suffered from multi-organ involvement, and 20.2% were free from any organ involvement.

Dengue deaths occurred at the median of 3 days post-admission. Dengue shock syndrome (DSS) contributed to more than 70% of dengue deaths, followed by severe organ involvement (69%) and severe bleeding (29.7%).

Conclusion
In Malaysia, dengue deaths occurred primarily in adult patients. DSS was the leading cause of death, regardless of age groups. The atypical presentation and dynamic progression of severe dengue in this cohort prompts early recognition and aggressive intervention to prevent deaths.

Leptospirosis Incidence and Mortality in Malaysia

Abstract

Leptospirosis is endemic in Southeast Asia, Central and South America, the Caribbean, and Oceania. Malaysia was categorized as a probable endemic country without any available data. Thus, this study was conducted to determine incidence, case fatality rate and mortality rate of leptospirosis. Leptospirosis is a notifiable disease in Malaysia since 2010 whereby probable or confirmed cases must be notified to relevant health district office.

There were 3,665 and 4,457 probable and laboratory confirmed leptospirosis cases notified in 2012 and 2013, respectively. In the 2-year period, the most common age group of patients was 19 years old or less (23.3%) with male:female ratio of 2.61:1. Students consisted about 16.9% of patients, followed by agriculture-based or plantation workers (14.7%). Overall age-standardized incidence rate of leptospirosis in Malaysia for 2012 and 13 was 29.02 per 100,000. Overall case fatality rate was 1.47% for 2-year period and overall age-standardized mortality rate was 0.45 per 100,000.

Leptospirosis is an emerging public health concern in Malaysia and may pose a significant health impact and burden to the nation in the coming years if not well controlled.
A Review of Metabolic Syndrome Research in Malaysia

Abstract

Seventy-three articles related to metabolic syndrome were found in a search through databases dedicated to indexing all literature with original data involving the Malaysian population between years 2000 and 2015. Metabolic syndrome affects 25 to 40% of adult population of Malaysia with the risk increasing with age. Obese children are also at risk. Indian ethnicity has the highest rates, followed by Malay and Chinese. It was found that socioeconomics determinants such as living in urban areas, unemployment lower income, lower education level and shift workers had higher prevalence of metabolic syndrome. Metabolic syndrome is associated with other medical conditions like cardiovascular diseases, psychiatric disorders, erectile dysfunction, polycystic ovarian syndrome and colorectal cancer. Several biomarkers have been determined to be relevant to our local population but their usage in clinical setting needs further research. Literature into effectiveness of management of metabolic syndrome in Malaysia is lacking and the results were only modest. There are several diagnostic criteria available for metabolic syndrome internationally and their individual significant to our local population is not clear. It also makes it difficult to compare results between studies using different criteria. Finally, we could not identify any local study to look at the health economic burden of metabolic syndrome locally.

A Review of Stroke Research in Malaysia from 2000 - 2014

Abstract

Over 100 articles related to stroke were found in a search through a database dedicated to indexing all literature with original data involving the Malaysian population between years 2000 and 2014. Stroke is emerging as a major public health problem. The development of the National Stroke Registry in the year 2009 aims to coordinate and improve stroke care, as well as to generate more data on various aspects of stroke in the country. Studies on predictors of survival after strokes have shown potential to improve the overall management of stroke, both during acute event and long term care. Stroke units were shown to be effective locally in stroke outcomes and prevention of stroke-related complications. The limited data looking at direct cost of stroke management suggests that the health economic burden in stroke management may be even higher. Innovative rehabilitation programmes including brain computer interface technology were studied with encouraging results. Studies in traditional complementary medicine for strokes such as acupuncture, Urut Melayu and herbal medicine were still limited.
Proposal of a Clinical Decision Tree Algorithm Using Factors Associated with Severe Dengue Infection

Abstract

Background
WHO's new classification in 2009: dengue with or without warning signs and severe dengue, has necessitated large numbers of admissions to hospitals of dengue patients which in turn has been imposing a huge economical and physical burden on many hospitals around the globe, particularly South East Asia and Malaysia where the disease has seen a rapid surge in numbers in recent years. Lack of a simple tool to differentiate mild from life threatening infection has led to unnecessary hospitalization of dengue patients.

Methods
We conducted a single-centre, retrospective study involving serologically confirmed dengue fever patients, admitted in a single ward, in Hospital Kuala Lumpur, Malaysia.

Results
657 patients with confirmed dengue were analysed, of which 59 (9.0%) had severe dengue. Overall, the commonest warning sign were vomiting (36.1%) and abdominal pain (32.1%). Previous co-morbid, vomiting, diarrhoea, pleural effusion, low systolic blood pressure, high haematocrit, low albumin and high urea were found as significant risk factors for severe dengue using simple logistic regression. However the significant risk factors for severe dengue with multiple logistic regressions were only vomiting, pleural effusion, and low systolic blood pressure.

Conclusion
The decision tree algorithm proposed in this study showed high sensitivity and NPV in predicting patients with severe dengue that may warrant admission. This tool upon further validation study can be used to help clinicians decide on further management of a patient upon first encounter. It also will have a substantial impact on health resources as low risk patients can be managed as outpatients hence releasing the scarce hospital beds and medical resources for other patients in need.

Socio Demographic Profiles Of Rheumatic Heart Disease (RHD) Patients in Sabah

Abstract

Introduction
Rheumatic Heart Disease (RHD) has been thought as a disease of poor socioeconomic status. It is more prevalent in underdeveloped and developing countries than in developed countries. It is also common among the population with multiple social issues such as overcrowded dwellings, undernutrition, poor sanitation and suboptimal medical care. This study was done to review the socio demographic pro-files of RHD patients in Hospital Queen Elizabeth (HQE) II, Kota Kinabalu, Sabah.

Methods
A secondary data review of all patients registered under the RHD registry in HQE II for one-year starting from July 2013 to June 2014.

Results
204 RHD patients were included. Nearly three quarter (74.0%) were female. The mean age was 40.43 (14.75) years old. 61.1% has completed secondary education. 42.7% were housewives. The mean monthly income was RM 1363.83 (1297.05) which was categorized under the vulnerable income group. 76.5% of them fell under those categories respectively. The nearest health facilities to their houses were district hospitals (33.3%) with the mean distance of 9.17 km and health clinics (30.8%) with the mean distance of 4.27 km. Only 11.5% of them lived near the specialist hospitals with the mean distance of 21.32 km.

Conclusions
Results from this review suggested that majority of RHD patients were in the low socioeconomic group with less access to health care facilities with specialist care. They are the most vulnerable groups and need to be prioritized in the specialized care program.
SOME OF CRC ACTIVITIES IN 2016

CRC Taiping Research Day (main outpatient building)

Date: 14th June 2016

10th National Conference for Clinical Research

Date: 27th to 28th July 2016
Venue: Hotel Istana, KL

Research Methodology for Dental Officers

Date: 29th Feb 2016
Continuous Nursing Education

Date:
5th Jan 2016

Good Clinical Practices Workshop

Date:
11th to 13th Apr 2016

Road show to Pejabat Kesihatan Daerah Kuala Kangsar

Date:
15th Jan 2016
Introduction to Clinical Research

Date:
28th to 30th Mar 2016
&
15th to 16th Nov 2016

Advertisement

CRC Taiping sponsorship criteria for conference attendance

- Sponsorship will cover:
  - Registration fee only
- Who can apply:
  - All staffs working in Hospital Taiping
  - Attending local conference only
  - Research must be registered via NMRR and approved by MREC
    (Please give NMRR ID number:____)
- Please send application to CRC Taiping office.
- The decision on the sponsorship from CRC Taiping is final.

Invitation for MO to Join CRC Hospital Taiping

- We are looking for Medical Officer who is keen and interested in research to join our Clinical Research Centre.
- Previous work in research will be an added advantage.
- If you are interested, please send in your application letter and resume.
- For further information or clarification, please contact us via phone ext: 8066 or direct line: 05-820 4029.
- We hope you will consider this wonderful opportunity to support medical research as an opportunity to improve patient care.
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

Every Tuesday

For appointment:
Extension:
- 8066
- 8081

Upcoming events in 2017

Courses/Conferences

14-15th February:
Basic Analysis using SPSS workshop

6-8th March:
Good Clinical Practice workshop

15-16th May:
Introduction to Clinical Research

18-19th July:
Medical Writing Workshop

10-11th October:
Basic Analysis Using SPSS workshop

Other activities:

Literature Search Using Pub Med
   19th January
   20th April
   20th July
   26th October
Analysis using Excel
   23rd February
   18th May
   17th August
   16th November
Critical Appraisal
   16th March
   15th June
   28th September

CME sessions: Thursday 2nd/3rd week of the Month, 3.00-4.00pm

12th January-Questionnaire development
8th February-Informed consent
9th March-Study design
13th April-Sampling technique
11th May-Creating an e-form
8th June-Research protocol component
13th July-Sample size
10th August-Poster presentation
14th September-Types of data
12th October-End note
9th November-NMRR registration
14th December-Bias in research