OFFICIAL PUBLICATION OF
THE MINISTRY OF HEALTH,
BRUNEI DARUSSALAM

Brunei International Medical Journal

Volume 11, Supplement 1

23 January 2015 (2 Rabiulakhir 1436H)

**"From Evidence to Practice:
Improving Quality of Primary Health Care Services"**

FRIDAY, 2 RABIULAKHIR 1436H / 23rd JANUARY 2015M
DEWAN AL`AFIAH, MINISTRY OF HEALTH

ISSN 1560 5876 Print
ISSN 2079 3146 Online

Online version of the journal is available at www.bimjonline.com

Brunei International Medical Journal (BIMJ)
Official Publication of the Ministry of Health, Brunei Darussalam

ISSN 1560-5876 Print
ISSN 2079-3146 Online

Aim and Scope of Brunei International Medical Journal

The Brunei International Medical Journal (BIMJ) is a six monthly peer reviewed official publication of the Ministry of Health under the auspices of the Clinical Research Unit, Ministry of Health, Brunei Darussalam.

The BIMJ publishes articles ranging from original research papers, review articles, medical practice papers, special reports, audits, case reports, images of interest, education and technical/innovation papers, editorials, commentaries and letters to the Editor. Topics of interest include all subjects that relate to clinical practice and research in all branches of medicine, basic and clinical including topics related to allied health care fields. The BIMJ welcomes manuscripts from contributors, but usually solicits reviews articles and special reports. Proposals for review papers can be sent to the Managing Editor directly. Please refer to the contact information of the Editorial Office.

Instruction to authors

Manuscript submissions

All manuscripts should be sent to the Managing Editor, BIMJ, Ministry of Health, Brunei Darussalam; e-mail: editor-in-chief@bimjonline.com. Subsequent correspondence between the BIMJ and authors will, as far as possible via should be conducted via email quoting the reference number.

Conditions

Submission of an article for consideration for publication implies the transfer of the copyright from the authors to the BIMJ upon acceptance. The final decision of acceptance rests with the Editor-in-Chief. All accepted papers become the permanent property of the BIMJ and may not be published elsewhere without written permission from the BIMJ.

Ethics

Ethical considerations will be taken into account in the assessment of papers that have experimental investigations of human or animal subjects. Authors should state clearly in the Materials and Methods section of the manuscript that institutional review board has approved the project. Those investigators without such review boards should ensure that the principles outlined in the Declaration of Helsinki have been followed.

Manuscript categories

Original articles

These include controlled trials, interventional studies, studies of screening and diagnostic tests, outcome studies, cost-effectiveness analyses, and large-scale epidemiological studies. Manuscript should include the following; introduction, materials and methods, results and conclusion. The objective should be stated clearly in the introduction. The text should not exceed 2500 words and references not more than 30.

Review articles

These are, in general, invited papers, but unsolicited reviews, if of good quality, may be considered. Reviews are systematic critical assessments of literature and data sources pertaining to clinical topics, emphasising factors such as cause, diagnosis, prognosis, therapy, or prevention. Reviews should be made relevant to our local setting and preferably supported by local data. The text should not exceed 3000 words and references not more than 40.

Special Reports

This section usually consist of invited reports that have significant impact on healthcare practice and usually cover disease outbreaks, management guidelines or policy statement paper.

Audits

Audits of relevant topics generally follow the same format as original article and the text should not exceed 1,500 words and references not more than 20.

Case reports

Case reports should highlight interesting rare cases or provide good learning points. The text should not exceed 1000 words; the number of tables, figures, or both should not be more than two, and references should not be more than 15.

Education section

This section includes papers (i.e. how to interpret ECG or chest radiography) with particular aim of broadening knowledge or serve as revision materials. Papers will usually be invited but well written paper on relevant topics may be accepted. The text should not exceed 1500 words and should include not more than 15 figures illustration and references should not be more than 15.

Images of interest

These are papers presenting unique clinical encounters that are illustrated by photographs, radiographs, or other figures. Image of interest should include a brief description of the case and discussion with educational aspects. Alternatively, a mini quiz can be presented and answers will be posted in a different section of the publication. A maximum of

three relevant references should be included. Only images of high quality (at least 300dpi) will be acceptable.

Technical innovations
This section include papers looking at novel or new techniques that have been developed or introduced to the local setting. The text should not exceed 1000 words and should include not more than 10 figures illustration and references should not be more than 10.

Letters to the Editor
Letters discussing a recent article published in the BIMJ are welcome and should be sent to the Editorial Office by e-mail. The text should not exceed 250 words; have no more than one figure or table, and five references.

Criteria for manuscripts
Manuscripts submitted to the BIMJ should meet the following criteria: the content is original; the writing is clear; the study methods are appropriate; the data are valid; the conclusions are reasonable and supported by the data; the information is important; and the topic has general medical interest. Manuscripts will be accepted only if both their contents and style meet the standards required by the BIMJ.

Authorship information
Designate one corresponding author and provide a complete address, telephone and fax numbers, and e-mail address. The number of authors of each paper should not be more than twelve; a greater number requires justification. Authors may add a publishable footnote explaining order of authorship.

Group authorship
If authorship is attributed to a group (either solely or in addition to one or more individual authors), all members of the group must meet the full criteria and requirements for authorship described in the following paragraphs. One or more authors may take responsibility 'for' a group, in which case the other group members are not authors, but may be listed in an acknowledgement.

Authorship requirement
When the BIMJ accepts a paper for publication, authors will be asked to sign statements on (1) financial disclosure, (2) conflict of interest and (3) copyright transfer. The correspondence author may sign on behalf of co-authors.

Authorship criteria and responsibility
All authors must meet the following criteria: to have participated sufficiently in the work to take public responsibility for the content; to have made substantial contributions to the conception and design, and the analysis and interpretation of the data (where applicable); to have made substantial contributions to the writing or revision of the manuscript; and to have reviewed the final version of the submitted manuscript and approved it for publication. Authors will be asked to certify that their contribution represents valid work and that neither the manuscript nor one with substantially similar content under their authorship has been published or is being considered for publication elsewhere, except as described in an attachment. If requested, authors shall provide the data on which the manuscript is based for examination by the editors or their assignees.

Financial disclosure or conflict of interest
Any affiliation with or involvement in any organisation or entity with a direct financial interest in the subject matter or materials discussed in the manuscript should be disclosed in an attachment. Any financial or material support should be identified in the manuscript.

Copyright transfer
In consideration of the action of the BIMJ in reviewing and editing a submission, the author/s will transfer, assign, or otherwise convey all copyright ownership to the Clinical Research Unit, RIPAS Hospital, Ministry of Health in the event that such work is published by the BIMJ.

Acknowledgements
Only persons who have made substantial contributions but who do not fulfill the authorship criteria should be acknowledged.

Accepted manuscripts
Authors will be informed of acceptances and accepted manuscripts will be sent for copyediting. During copyediting, there may be some changes made to accommodate the style of journal format. Attempts will be made to ensure that the overall meaning of the texts are not altered. Authors will be informed by email of the estimated time of publication. Authors may be requested to provide raw data, especially those presented in graph such as bar charts or figures so that presentations can be constructed following the format and style of the journal. Proofs will be sent to authors to check for any mistakes made during copyediting. Authors are usually given 72 hours to return the proof. No response will be taken as no further corrections required. Corrections should be kept to a minimum. Otherwise, it may cause delay in publication.

Offprint
Contributors will not be given any offprint of their published articles. Contributors can obtain an electronic reprint from the journal website.

TABLE OF CONTENTS

The Third Primary Health Care Clinical Audit Symposium 2015 with a theme ***'From Evidence to Practice: Improving Quality of Primary Health care Services'*** was held on the 23rd January 2015 at the Dewan Al'Afiah, Ministry of Health, Brunei Darussalam.

Documentation of family history of cardiovascular diseases in Bru-HIMS clinical notes of chronic disease cases in Jubli Emas Bunut Health Centre

Principal author: Eniza Agustri Amir Muhammad
Co-authors: Nur Izzati Nadhirah DP Hj Mustafa, Hj Faruque Reza

Background: Studies have shown that family history of hypercholesterolemia, stroke, coronary heart disease, hypertension and diabetes mellitus are risk factors for cardiovascular disease. Hence, it is important to know a patient's family medical history so that we can take measures to reduce the patient's risk of cardiovascular disease. The aim of this audit was to evaluate the current practice in documentation of family history of cardiovascular diseases.
Materials and Methods: A retrospective study was carried out in the Jubli Emas Bunut Health Centre. Data was randomly collected from Bru-HIMS patients' clinical notes who attended the Chronic Disease Clinic from 1st February 2014 to 31st July 2014. Open appointment patients were excluded. The target standard of 80 % was set for documentation of family history of cardiovascular disease like; coronary heart diseases, hypertension, diabetes mellitus, stroke, and hypercholesterolemia.
Results: Out of 230 samples of clinical notes audited, only 27 (11.7%) had documentation family history cardiovascular disease. Among these documented of family history notes, only Hypertension (85.2%) achieved the standard set. Whilst family history of DM (55.6%), family history of coronary heart disease (29.6%), family history of hypercholesterolemia (33.3%) and family history of stroke (41.2%), were not achieved the target level.
Conclusion: The study showed documentation of family history of cardiovascular diseases is below the target. Further improvement should be done. Re-audit will be done after 2-3 year.

An audit on notification of gastroenteritis in Berakas 'A' Health Centre

Principal author: Pg Hjh Roserahaini Pg Hj Idros
Co-authors: Mohd Elham bin Hj Mohd Ismail, Hjh Martina Melati DSP Hj Kifrawi

Background: Gastroenteritis is the number one leading cause of hospital inpatient morbidity in Brunei Darussalam for three consecutive years from 2010 until 2012. It is the fourth leading cause of health centres outpatient morbidity for January to June 2012. Gastroenteritis is one of the 57 notifiable infectious disease in which notification is required by Brunei law, under the 'Infectious Disease Order 2003'. However, it was noted that the notification of gastroenteritis was low despite a gastroenteritis outbreak in August and September 2014. Therefore, some measures were taken by the Ministry of Health in September 2014. With all the measures done, it would be important to evaluate the notification of gastroenteritis. The aim of this audit is to evaluate if gastroenteritis cases seen in Berakas 'A' Health Centre in October and November 2014 are being notified. The primary objective of this audit is to determine if all patients diagnosed with gastroenteritis in Berakas 'A' Health Centre in October and November 2014 are notified. The secondary objectives are; 1) to determine the percentage of patients with gastroenteritis that were notified in August and September 2014, for comparison, and 2: to explore possible reasons why notification of gastroenteritis was not done.
Materials and Methods: The target population is patients attending Berakas 'A' Health Centre during the months of October to November 2014. The inclusion criteria is all patients with diagnosis of 'Diarrhoea and gastroenteritis of presumed infectious origin' coded using International Classification of Diseases -10 (ICD-10) as 'A09', seen in General, Flu and Chronic Disease Clinic. The exclusion criteria is patients who are given ICD-10 code of 'A09' but who did not meet the definition of gastroenteritis. The standard set for this audit is that at least 85% of patients that have been diagnosed with gastroenteritis should be notified. A convenient sampling was done. The duration of this sampling was 2 months, in October and November 2014.
Results: A total of 117 patients were diagnosed with gastroenteritis and coded as ICD-10 'A09' in October and November 2014. Five patients were excluded from the analysis. Out of the 112 patients diagnosed with gastroenteritis in October to Novem-

ber 2014, 100 (89.3%) of the patients were notified. Therefore, the standard set in this audit is met. The most likely reason why the standard was met is because of the effective measures taken by the Ministry of Health in increasing the awareness of gastroenteritis.

Conclusion: The standard was met for patients diagnosed with gastroenteritis to be notified to Disease Control Division in October to November 2014. The measures taken by the Ministry of Health to increase the awareness of gastroenteritis and improve its management, specifically notification, has been proven to be effective. We can also adopt these measures in other management of diseases that needs improvement. It is hoped that this increase in percentage of notification will maintain or even improve further.

An audit on the use of emollients in consultations coded as atopic eczema in Berakas B Health Centre

Principal author: Dr Hj Zulhilmi POKHP DSS Hj Abdullah

Introduction: Skin barrier dysfunction plays a pivotal role in the pathogenesis of atopic eczema. The use of emollients is considered to be the fundamental and most important treatment for atopic eczema. The aim of this audit was to retrospectively audit the use of emollients in individual consultations coded as having atopic eczema in Berakas B Health Centre. The standard is 100% of consultations included a prescription for emollients or advice on the use of emollients in the management of atopic eczema.

Materials and Methods: A retrospective search of consultations in the morbidity data for Berakas B Health centre between 1st May 2014 and 30th November 2014 that were coded as atopic dermatitis or atopic eczema. These consultations were analysed to look for a prescription of emollients or any mention of advice on the application of emollients at home.

Results: 111 consultations were coded as atopic eczema. 41 consultations should not have been coded as atopic eczema. In the remaining 70 consultations, 91% of these consultations resulted in a prescription for emollients, not reaching the 100% standard. The most popular prescription is aqueous cream alone whilst a number were also given a second oil-based emollient. The remaining 9% of consultations were neither prescribed nor given advice on the use of emollients.

Recommendations:

1) All patients should be prescribed an adequate supply of emollients with advice the importance of keeping their skin moisturised

2) Improve diagnosis of atopic eczema by using the established diagnostic criteria such as UK working party diagnostic criteria for Atopic Eczema

3) Dissemination of information on management of atopic eczema through continuous medical education lecture

Future audit: A similar audit needs to be undertaken after 12 months, expanded to include the diagnostic accuracy and the amount of emollients prescribed.

Audit on nebulisation use among patients with acute exacerbation of Bronchial Asthma attending the flu clinic at Jubli Perak Sengkurong Health Centre

Principal author: Hj Muhammad Firdaus Bin Hj Mat Daud
Co-authors: Hih Zawatil Amal Hj Md Don, Khine Thant Sin

Introduction: Bronchial asthma is major medical problem globally and produces a significant workload for general practice. It is recommended from published international guidelines to use $beta_2$ agonists using pMDI and spacer for acute asthmatic patients. However, in reality general practitioners still continue to rely on nebulised administration of $beta_2$ agonists for acute asthmatic patients. The aim of this audit is to study the use of nebulisations among patients with acute exacerbation of bronchial asthma at the Jubli Perak Sengkurong Health Centre.

Materials and Methods: This audit is a retrospective study looking at nebulisations that were administered to patients presenting with acute exacerbation of bronchial asthma in flu clinic. Data was retrieved from the flu clinic treatment list over a 1 year period from January to December 2014 with a target sample size of 300 patients. Extracted data include the patients' demographics, electronic medical record (BRUHims) number, date nebulised, type and dose of nebulisations. We also compared the nebulisations administered with those recommended by the 2009 Brunei Asthma Guideline. The standard set for this audit was that at least 80% of adults and children with acute exacerbation of bronchial asthma were given nebulisation according to the guideline.

Results: Only 67.3% (n=202) of patients with exacerbation of bronchial asthma received the correct dose of nebulisations as per guideline. In addition, only 66.5% (n=113) of adults and 68.5%

(n=89) of children were nebulised with the correct dose. Underdosage of ipratropium bromide and salbutamol was found to be the main reasons for the standards not being met.

Conclusion: In general, only two-thirds of the patients presenting with acute exacerbation of bronchial asthma were given the correct dose as per the 2009 Brunei Asthma Guideline. Several factors have been indentified to help improve the management of acute exacerbation of bronchial asthma in the primary care setting. We recommend that a new and updated guideline for the management of acute exacerbation of bronchial to be developed that is applicable to the community.

Quality standard audit for the management of hypertension in Muara Health Centre

Principal author: Sajjad Khan
Co-authors: Ruzanna Johari, Seit Mei Chien

Introduction: Hypertension is becoming the major cause of death and disability, even though it is one of the modifiable risk factors for cardiovascular disease (CVD). In Brunei, hypertension is the 2nd leading cause of outpatient morbidity, and the 5th leading cause of mortality in 2012. The aims of this audit was to look the quality standard of the management of hypertension amongst patients based in Muara Health Centre, against the quality standard for hypertension set by the National Institute for Health and Care Excellence (NICE) 2013. To determine whether we have achieved 70% of the following quality statements: 1) People with newly diagnosed hypertension and a 10-year CVD risk of > 20% are offered statin therapy, 2) People with treated hypertension have a clinic blood pressure target set to below 140/90 mmHg if aged under 80 years, or below 150/90 mmHg if aged 80 years and over, and 3) People with resistant hypertension who are receiving four antihypertensive drugs and whose blood pressure remains uncontrolled are referred for specialist assessment.

Materials and Methods: Data from 300 patients with hypertension aged between 18 to 80 years old was collected retrospectively over a period of 1 month 1st october2014 till 31st October 2014. Exclusion criteria included patients with chronic kidney disease, patients from other catchment area, patients discharged from other health centres or physicians' clinics within a year (2014), patients who had defaulted treatment for more than one year, and pregnant women.

Results: Out of the 82 patients with CVD risk of more than 20%, only 55 patients (67.1%) had statin therapy. There were 238 (79.3%) patients with good control of their clinic blood pressures. There were 11 (3.7%) patients who were receiving 4 or more antihypertensive drugs and whose blood pressure were still uncontrolled. However, none of them was referred for further specialist assessment.

Conclusion: One out of the three standard achieved, which is maintaining blood pressure of patients within targeted limits was achieved (>70%). Calculation of CVD risk is not being performed or documented as often. Furthermore, specialist advice is not sought urgently for patients with resistant hypertension. Overall, the quality of care for the management of hypertension in the community is less than satisfactory.

Management of cardiovascular risk factors among patients with chronic disease at PAPHMWHB Health Centre, Gadong 2014

Principal author: Selinji Gopal
Co-authors: Aziz Ahmed Channar, Saadia Yasin

Introduction: Cardiovascular diseases (CVDs) are the number one cause of death globally. The majority of CVDs can be prevented by lifestyle changes addressing the risk factors involved. The goal of early assessment of cardiovascular risk in an asymptomatic individual is to initiate preventive efforts based on the predicted risk of the individual. The aim of this study is to explore our practice of detection and management of CVD risk factors in patients with chronic diseases like hypertension, diabetes and dyslipidemia.

Materials and Methods: Approximately 800 records of patients who attended the chronic disease clinic in the month of October 2014 were extracted from BHUHIMS, and divided amongst 3 doctors. Each doctor selected 100 records which fitted the audit criteria. The patient notes were anlaysed for detection and management of CVD risk factors namely personal history of diabetes mellitus, smoking, hypertension, dyslipidemia, physical inactivity, weight and/or BMI and family history of CVD at age < 60 yrs.

Results: About 89% of the patients had hypertension, 27.7% had diabetes mellitus and 62.3% had hyperlipidemia. 22% were recorded as smokers, 44% non-smokers, 3.6% ex-smokers; smoking history was not recorded in 30.4% of notes. Physi-

cal activity was recorded in just 3% of notes. A positive family history of cardiovascular disease was recorded in 9% of notes; negative family history in 28.7%, and not recorded in 61% of patient notes. Weight was recorded in all patient notes, but BMI calculation was done in very few only. We have put forward some suggestions and requests for improvement of the care of our chronic disease patients.

Conclusion: The recording of the risk factors for CVDs were suboptimal and needs improvement. We have put forward some suggestions and requests for improvement of the care of our chronic disease patients.

An audit on the effectiveness of care manager in coordinating chronic disease management in Pengkalan Batu Health Centre

Principal author: Hjh Norafizan binti Hj Hazipin
Co-authors: Hj Mahmud Shauqi DPSS Hj Mahmud Saedon, Bilal Habib, Hj Shahrenizam Azren Hj Wasli

Introduction: On 1st July 2014, Pengkalan Batu Health Centre has started a pilot program called the Nurse Care Manager to enhance the quality of chronic disease management in the Primary Care by providing structured and integrated care via a collaborative team-based approach. The aim of this audit was to evaluate the effectiveness of the Nurse Care Manager program in optimising specific management aspect of chronic diseases in Pengkalan Batu Health Centre. The objectives of this audit are to determine if the specific relevant information of patients with chronic diseases are gathered and documented in accordance to the nurse care manager template; ascertain if specific examination of all patients with chronic diseases are conducted and documented in accordance to the nurse care manager template prior to doctor's consultation; and assess if appropriate referrals to the relevant stakeholders in the management of chronic diseases are performed according to the agreed criteria.

Materials and Methods: This was a prospective audit. Data from 300 chronic disease patients attending follow-up clinics at Pengkalan Batu Health Centre were collected over a period of 1.5 months.

Results: Only four out of 21 audit criteria achieved the gold standard. All the other criteria did not meet the gold standard for this audit.

Conclusions. As the Nurse Care Manager program has the potential of optimising the chronic disease management in Pengkalan Batu Health Centre, the team felt that it should be continued. It may not be extended to other health centres at this point until all the limitations have been addressed. The recommendations that were suggested to improve the program include revising the nurse care manager template, continuous training for the nurses, regular meetings between nurses, doctors and allied health professionals and also addressing nurses' manpower issues.

An audit on the assessment of present diagnosis and management protocols for sexually transmitted infections in prison facilities

Principal author: Asad Dar
Co-authors: Tariq Iqbal, Ghulam Sarwar Dogar

Introduction: Prisons are recognised worldwide as important sites for transmission of blood-borne viruses and sexually transmitted infections such as HIV, Hepatitis B, Hepatitis C and syphilis. Many Studies have been done in prisons, in different countries with regards to STI screening and management, which have emphasized the need and effectiveness of STI screening and management programs. This audit was done to: 1) To assess the present methods of STI screening and management in prison settings of Brunei Darussalam, and 2) To compare the present standards of screening and management of STI's in Brunei prisons to W.H.O and other international standards and guidelines and to recommend changes if needed.

Materials and Method: An audit was done at two prisons and one drug rehabilitation center in Brunei Darussalam. A Performa was used to collect the data and was completed in a period of two weeks. (1stDecember till 14th December, 2014). The data was collected from the medical files of all the prisoners, under detention or released from the three detention facilities, during 1st January 2014 till 31st November, 2014 by three doctors and prison staff. All adult prisoners who were serving sentence or released during the study period were included. All male and female prisoners were included. All detainees on remand/ on court trial or detained for less than one month were excluded from the study. The standard criteria were; 1) all high risk prison-

prisoners i.e. 100 % of the prisoners should be screened and treated for STI's, and 2) 100% of patients with any of the STI's should be referred to their respective clinics on release from prison, for follow up. So 100% was selected as our target to achieve for the audit.

Results: We looked at 804 prisoner files, which showed that 744 prisoners were screened for STI's. The results show that 33% HBV positive patients were referred to specialist clinic for further advice and management. Similarly, 90% Bruneian and 11.1% of non-Bruneian HCV positive patients were referred to specialist clinic for treatment. 64 % of prisoners having syphilis were referred to skin clinic. Presently, 100% (i.e. 2) HIV positive prisoners are non-Bruneian citizens and are receiving free retroviral treatment from the Disease control specialist clinic. Finally, 66% of the Bruneian citizen with STI, on release, were referred to respective clinics for follow up. Whereas only 33% of foreign prisoners were referred to the clinics for follow up on release.

Conclusion: Although we did not meet any of the set targets, a high percentage for screening of STI's in Brunei prisons, is still plausible. There were noticeable differences among local and foreign prisoner treatment and referral targets achieved.

Free Papers were also presented as poster.

Audit on documentation of travel history in flu patients attending the Berakas A Health Centre in November 2014

Principal author: Ayesha Omar
Co-authors: Hj Mohamed Salihu Farook, Teo Moi Moi

Introduction: The increased travelling by people worldwide and the occurrence of infections like MERS and Ebola virus nowadays, has posed a severe threat to the health of individuals and increases the chances of causing an epidemic affecting the entire community. Therefore, it has been repeatedly advised by MOH to inquire about travel history and to document travel history in the case notes. This audit was carried out to ensure if the advice given was being followed. Hence, an audit was done to determine if there had been proper documentation of travel history in patients with flu-like symptoms presenting to the Flu clinic of Berakas A HC in November 2014 as advised by Ministry of Health.

Materials and Methods: A retrospective study was carried out on all the 606 patients attending the Flu clinic in November 2014.Three doctors were responsible for collecting data.

Results: Our results showed that only 24% of the patients had documentation of travel history in the clinical notes. Out of these patients, 62 patients (43%) had documentation done by doctor and 81 patients (57%) had documentation done by a nurse.

Conclusion: Our conclusion was that the documentation of travel history despite repeated reminders was not satisfactory. A suggestion to improve documentation would be to add a tick box in the Flu clinical notes inquiring about travel history.

Defaulter audit in child health

Principal author: Alma Basallo Soriano
Co-authors: Yung Chee Tee, Vaishali Pethe, Sheila Marie Dy

Introduction: Child health is a state of physical, mental, intellectual, social and emotional well-being.Immunization is essential in maintaining health.Some parents fail to come on their appointment so standard operating procedure was taken to trace child health defaulters in Brunei-Muara district. This audit aims to evaluate the Standard Operating Procedure for tracing defaulters in child health; evaluate the reasons of defaulters; identify services defaulted and age group of defaulters.

Materials and Methods: This is a retrospective audit in Child Defaulters in Brunei-Muara District from January 2014 to March 2014.Log books were reviewed as to the;age groups,reasons of default,service defaulted and success of attempts on tracing defaulters.

Results: All defaulters were recalled by Stage 1a and yield 61% (860).48 cases recalled by stage 2 and yields 67% (32). 2% (10) of defaulters from Stage 2 were progressed to be recalled by Stage 3.Top 5 reasons of defaulters were forgotten appointment(46.8%),sick or unwell child (20.6%),busy parents(17%),no transport 6.8%) and abroad (3%).Most service defaulted is the nurse routine assessment (43%),only (10%) from immunization plus assessment with medical officer.15% defaulters below 6 months old,14% were found above 6 months to 1 year old,27% those above 12 months to 24 months old,16% defaulters above 24 months and below 3 years old. The largest group of defaulters arose from those aged above 3 years old by 28%.

Conclusion: All defaulters were recalled by Stage 1a and yield 61%.Forgotten appointment was the most frequent reason. Nurse's assessment was the most defaulted service. As expected since nurses see a larger population. Age group of defaulters is not equally distributed, thus, not comparable.

Recommendations: Print list of patients in the appointment list; Proper organization in giving appointment; Revise SOP in tracing defaulters; Liaise with MRO to ensure activation of SMS system; Calling 3 or 5 days prior to the appointment; Re-audit for the succeeding months will be carried out.

An audit on the ophthalmology referrals of type 2 diabetes mellitus patients for DM retinopathy screening in PAPHMWHB Clinic

Principal author: Mubashir Amin Butt
Co-author: Joseph Castro Ma Anthony Delgado

Introduction: Diabetic eye disease refers to a group of eye problems that people with diabetes may face as a complication of diabetes. All can cause severe vision loss or even blindness. Diabetic retinopathy is the most common diabetic eye disease and a leading cause of blindness in American adults. Often there are no symptoms in the early stages of the disease, nor is there any pain. This is why it is imperative to have a comprehensive dilat-

ed eye exam at least once a year (NICE guidelines recommendation for DM). Screening and detection of early retinopathy enables early prevention of complications and blindness. The audit aims to assess if doctors in PAPHMWHB are following the guidelines in the management of T2DM, and referring theses patients for eye examination.

Materials and Methods: 200 DM type 2 patients on follow up at PAPHMWHB Clinic from the period of 1 October 2014 to 10 December 2014 were asked whether they were referred to the Eye Clinic on their follow up appointment and whether they were screened for retinopathy at the Eye Clinic within the preceding year. DM 1 patients, newly diagnosed DM 2 patients, defaulters, and patients under review at PHY Endocrine Clinic at RIPAS were excluded from the audit.

Results: Out of 200 DM 2 patients, 174 were referred to the Eye Clinic, comprising 87%. Gold Standard was achieved here. Out of 200 DM 2 patients, only26 were not referred to the Eye Clinic, comprising 13%.

Out of 174 patients referred to Eye Clinic, 155 were seen, comprising 89%. Gold standard is also achieved here.

Conclusion: Doctors of PAPHMWHB Clinic have referred DM type 2 patients for DM retinopathy screening 87% of the time during their regular follow up, achieving gold standard, and 89% were likewise seen at the Eye Clinic within the preceding year, also achieving gold standard. Clinic doctors therefore are following the set guidelines for management of DM type 2 with regards to Eye screening. Although this is laudable, we recommend that doctors still improve and adhere to management and aim for 100% results.

A clinical audit on the uptake of Influenza vaccination in elderly patients tn PAPHMWHB Health Centre

Principal author: Haji Mohammad Sharimie Haji Sahari
Co-author: Sa'adatul Akma Hj Awg Bakar

Introduction: Influenza is an acute viral infection which can affect anyone regardless of age or health status. For elderly (age 65 years old and above) patients, they are considered to be one of the high risk group for influenza infection. This audit aims to show the uptake rate of influenza vaccination in elderly in PAPHMWHB Health Centre, Gadong.

Materials and Methods: Data were collected from the clinical notes (BruHims) of patients who attended the Chronic Disease Clinic (CDC) from October to December 2014. The first 100 patients who were eligible were included for this audit.

Results: Only 13% were offered influenza vaccination. The rest were either not offered or vaccination was offered but not recorded in the note.

Conclusion: Uptake of influenza vaccination in elderly patient in PAPHMWHB Health Centre is low and does not meet the target (70% and above). Strategies are needed in order to increase the uptake of influenza vaccination in the elderly.

Audit of outpatient general clinic waiting times at PAPHMWHB Health Centre

Principal author: Nur Sadrina Hj Marsidi
Co-authors: Hjh Izzatul Akmal binti POKHP DSS Haji Abdullah, Norafizah Hj Serbini

Introduction: PAPHMWHB (Gadong) Health Centre has introduced a patient appointment system since July 2013. This audit is undertaken after approximately one year of implementing this appointment system. The objective of this audit was to measure waiting times for patients to be seen by their respective assigned doctors.

Materials and Methods: Data was prospectively collected over a period of 4 weeks in November 2014. No show patients, patients with forced bookings or patients who left before being seen were excluded from the analysis. Every fourth patient on the actual waiting times schedule were chosen to be included until the total N reached 300. The standard set for the audit was that 80% of patients should be seen within 15 minutes of patients' assigned appointment time.

Results: N = 300. 36% of patients were seen within 15 minutes standard set, or on time. 36.3% of patients were seen later than 15 minutes with an average waiting time of 38.4 minutes. Out of those seen later than 15 minutes, 18.3% were latecomers i.e. registered later than their given appointment time.

Discussion: Several factors were identified which contributed to standards not being met including 1) consultation times took more than the allocated 10 minutes, 2) emergency cases which disrupted the schedule, 3) patients not arriving on time to register 30 minutes before appointment times causing delays in seeing scheduled patients and 4) technical

difficulties with electronic medical records.

Recommendations: Several recommendations were put forth for both doctors and nursing staff to improve the percentage of patients seen within 15 minutes of patients' assigned appointment time. For example, educating and reinforcing to patients the importance of coming on time and rescheduling new appointments for latecomers. In addition, doctors need to actively help out with their colleagues' list of patients when they are behind schedule.