

About MFP

The *Malaysian Family Physician* (MFP) is the official journal of the Academy of Family Physicians of Malaysia (AFPM). It is jointly published by the Family Medicine Specialist Association (FMSA) of Malaysia. The MFP is published three times a year. It also started an Online First section in January 2021, where accepted articles are published online ahead of the issue.

Goal: The MFP is an international journal that disseminates quality knowledge and clinical evidence relevant to primary care. The journal acts as the voice of family physicians, researchers and other members of the primary care team on clinical practice issues.

Scope: The MFP publishes:

- i. Research – Original Articles and Reviews
- ii. Education – Case Reports/Clinical Practice Guidelines/Test Your Knowledge. We only encourage case reports that have the following features:
 1. Novel aspects
 2. Important learning points
 3. Relevant to family practice
- iii. Invited debate, commentary, discussion, letters, online, comment, and editorial on topics relevant to primary care.
- iv. A Moment in the Life of a Family Physician – We encourage submission of a short narrative to share perspectives, voice, views and opinions about a family physician's experience that has affected their practice or life.
Read our Information for Authors section to learn more about these article types.

Strength: MFP is the only primary care research journal in Malaysia and one of very few in the region. It is open access and fully online. The journal is indexed in Scopus and has a strong editorial team and an established pool of readers with increasing recognition both locally and internationally.

Circulation: The journal is freely available online.

Publisher: Academy of Family Physicians of Malaysia

All correspondence should be addressed to:

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The Editor

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Publication Ethics

Ethics: Evidence of ethics approval and informed consent should be included in the manuscript for studies involving animal experiments or human participants.

Competing interests: MFP requires authors to declare all conflicts of interest in relation to their work. All submitted manuscripts must include a 'competing interests' section at the end of the manuscript (before references) listing all competing interests.

Ethical Guidelines for Authors

Authorship credit should be based only on:

1. Substantial contributions to conception and design, or acquisition of data, or analysis and interpretation of data;
2. Drafting the article or revising it critically for important intellectual content; and
3. Final approval of the version to be published.
4. Agreement to be accountable for all aspects of the work ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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Information for Authors

The Malaysian Family Physician welcomes articles on all aspects of family medicine in the form of original research papers, review articles, CPG review, case reports, test your knowledge and letters to the editor. The journal also publishes invited debate, commentary, discussion, letters, comment, A Moment in the Life of a Family Physician and editorials on topics relevant to primary care.

Articles are accepted for publication on condition that they are contributed solely to the Malaysian Family Physician. Neither the Editorial Board nor the Publisher accepts responsibility for the views and statements of authors expressed in their contributions. All papers will be subjected to peer review. The Editorial Board further reserves the right to edit and reject papers. Authors are advised to adhere closely to the instructions given below to avoid delays in publication.

All manuscripts must be submitted through the Open Journal System (OJS).

SUBMISSION REQUIREMENTS

1. The author must declare that the manuscript has not been previously published, nor is it being considered for publication in another journal concurrently.
2. **The Main Manuscript** should be submitted in electronic form only and in **Microsoft Word**.
 - The manuscript **contains all the sub-headings required** for the article type (refer below).
 - The manuscript uses a **single-spaced, 12-point font and uses italics rather than underlining** (except URL addresses).
 - **All figures, tables and illustrations are placed at the appropriate sections in the manuscript file** rather than at the end of the manuscript or submitted separately.
 - Use left-aligned paragraph formatting rather than full justification.
 - Follow the instructions in Ensuring a Blind Review (refer below).
 - Follow the referencing style provided in the References section below.
 - Provide URLs for references where available.
 - Where available, URLs for the references have been provided.
3. The **Title Page** must be uploaded separately from the main manuscript file in Microsoft Word. Please refer to the required sub-headings in the Title Page section below.
4. A **Cover Letter** must be signed by the corresponding author on behalf of all authors. This letter must include this statement “this manuscript is my (our) own work, it is not under consideration by another journal, and this material has not been previously published.”
5. All authors must sign the **Declaration Form** and submit it together with the manuscript and cover letter. Please download the form here.
6. Please enter **all authors’ name and email address** in the submission portal.
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8. The editorial team uses the Plagiarism Detector software to screen submitted manuscripts for plagiarism. If the originality score is below 80% with clear evidence of plagiarism, we will follow COPE guidelines and the manuscript will not be considered for publication.

TITLE PAGE

For all types of manuscript, please include all the sub-headings below in the Title Page (you can use this template):

- **Article Type:** Original Research / Review / CPG Review / Case Report / Test Your Knowledge / Letter To Editor
- **Title:** Please state the title in detail to include the study design, particularly for original research.
- **Author(s):** The full names, professional qualifications and institutions of all authors.
- **Shortened name of author(s):** should be written in the style of surname or preferred name followed by initials, e.g. Abdullah KS, Rajakumar MK, Tan WJ, for future indexing.
- **Corresponding Author:** Corresponding author’s mailing address, designation, institution and contact details (email, telephone and fax numbers)

MAIN MANUSCRIPT

For every article submitted, please follow the requirements according to the type of article.

Original Research (Including Clinical Audit Article)

The original research (including clinical audit) should be conducted in the primary care setting on a topic of relevance to family practice. Both qualitative and quantitative studies are welcome. The length should **not exceed 3000 words with a maximum of 5 tables or figures and 30 references**. Please include the following sub-headings in the manuscript:

1. **Title:** State the title based on PICO, including study design.
2. **Abstract:** Structured abstract (Introduction, Methods, Results and Conclusion) of no more than 250 words.
3. **Keywords:** 3-5 keywords, preferably MeSH terms.
4. **Introduction:** Clearly state the purpose of the article with strictly pertinent references. Do not review the subject extensively.
5. **Methods:** Describe the study in sufficient detail to allow others to replicate the results. Provide references to established methods, including statistical methods; provide references and brief descriptions of methods that have been published but are not well known; describe new or substantially modified methods, give reasons for using them, and evaluate their limitations. When mentioning drugs, generic names are preferred (proprietary names can be provided in brackets). Do not use patients’ names or hospital numbers. Include numbers of observation and the statistical significance of the findings. When appropriate, state clearly that the research project has received the approval of the relevant ethical committee. For an RCT article, please include the trial registration number) and follow the CONSORT checklist. Other study designs must also follow a reporting checklist, which can be found at <https://www.equator-network.org/>.
6. **Results:** Present your results in logical sequence in the text, tables and figures. Tables and figures may be left at the respective location within the text. These should be numbered using Arabic numerals only. Table style should be “Simple” (as in Microsoft Word). Do not repeat table or figure data in the text.
7. **Discussion:** Emphasise the new and important aspects of the study and conclusions that follow from them. Do not repeat data given in the Results section. The discussion should state the implications of the findings and their limitations and relate the observations to the other relevant studies. Link the conclusions with the aims of the study but avoid unqualified statements and conclusions not completely supported by your data. Recommendations, when appropriate, may be included.
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10. **Ethical Approval:** Please state if the study was approved; if so, by which institution and the approval ID.
11. **Conflicts of interest:** All authors must declare any conflicts of interest.
12. **Funding:** Please state if the study was funded; if so, by which institution and the funding ID.
13. **Data sharing statement:** Please describe your data sharing plan. State if your raw data is uploaded in publicly available databases, shared via controlled access repositories or only available upon request.
14. **How does this paper make a difference in general practice?:** This section should be written in bullet points (up to five points) and must not exceed 100 words.
15. **References:** Refer to the References section below for more details.

Review

All types of review articles, including narrative review, scoping reviews and systematic reviews are accepted for publication in MFP. A comprehensive review of the literature with a synthesis of practical information for practising doctors is expected. For a systematic review, the PRISMA checklist (<https://www.equator-network.org/reporting-guidelines/prisma/>) must be followed. For a scoping review, the PRISMA-ScR checklist (<https://www.equator-network.org/reporting-guidelines/prisma-scr/>) should be followed. The length should **not exceed 4000 words with a maximum of 5 tables or figures and 40 references**. Please include the following sub-headings in the manuscript:

1. **Title:** Include the topic and type of review in the title.
2. **Abstract:** Structured abstract (Introduction, Methods, Results and Conclusion) of no more than 250 words.
3. **Keywords:** 3-5 keywords, preferably MeSH terms.
4. **Introduction:** Describe the topic and objective of the review.
5. **Methods:** All types of review articles (including narrative review) must report the search strategy, database and keywords used to obtain the literature. The PRISMA and PRISMA-ScR checklists should be followed for systematic and scoping reviews, respectively.
6. **Results (*for systematic and scoping reviews):** This section is required for systematic and scoping reviews. Please follow the guideline in the PRISMA and PRISMA-ScR checklists.
7. **Discussion (*for systematic and scoping reviews):** This section is required for systematic and scoping reviews. Please follow the guideline in the PRISMA and PRISMA-ScR checklists.
8. **Any relevant subheadings (*for narrative review):** A narrative review may have any other relevant sub-headings according to needs.
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10. **Acknowledgements:** Acknowledge the people who have contributed significantly to the study (but do not qualify for authorship).
11. **Author contributions:** Describe the contributions of every authors in the study.
12. **Review protocol registration:** Please state where the study protocol was registered and the approval ID.
13. **Conflicts of interest:** All authors must declare any conflicts of interest.
14. **Funding:** Please state if the study was funded; if so, by which institution and the funding ID.
15. **How does this paper make a difference in general practice?:** This section should be written in bullet points (up to five points) and must not exceed 100 words.
16. **References:** Refer to the References section below for more details.

Case Report

Case reports should preferably be less-commonly seen cases that have an educational value for practising doctors. Only case reports that are **novel, have important learning points and relevant to family practice** will be accepted for publication in this journal. The case report must be written in a **patient-centred manner instead of a disease-centred focus**. The length should **not exceed 1500 words and cite no more than 20 references**. Before submitting the case report, the authors must ensure that the patient's identity is protected both in the text and pictures. This patient consent form must be signed and uploaded during submission. Please include the following sub-headings in the manuscript:

1. **Title:** Use an interesting title to show the new learning points and include the term "case report" in the title.
2. **Abstract:** Unstructured abstract between 100-250 words.
3. **Keywords:** 3-5 keywords, preferably MeSH terms.
4. **Introduction:** Describe the condition and aim of the case report.
5. **Case Presentation:** Describe the case in detail.
6. **Discussion:** Discuss the case with existing literature.
7. **Conclusion:** Provide the key learning point from the case report.
8. **Acknowledgements:** Acknowledge the people who have contributed significantly to the study (but do not qualify for authorship).
9. **Conflicts of interest:** All authors must declare any conflicts of interest.
10. **Author contributions:** Describe the contributions of every authors in the study.
11. **Patients' consent for the use of images and content for publication:** Was consent obtained from the patient(s)? Was the consent written or verbal? Has the patient consent form been signed?
12. **What is new in this case report compared to the previous literature?:** This section should be written in bullet points (up to five points) and must not exceed 100 words.
13. **What is the implication to patients?:** Describe any potential implication to patients based on the learning points from this case report.
14. **References:** Refer to the References section below for more details.

CPG Review

The CPG should be relevant to primary care. Its length should **not exceed 4000 words and 40 references**. An abstract is required (no more than 300 words) together with the keywords. The CPG review should be written with case vignettes to illustrate its application in primary care practice.

1. **Title:** State the scope of the CPG, include the latest version or year for revised CPGs.
2. **Abstract:** Unstructured abstract between 100-250 words.
3. **Keywords:** 3-5 keywords, preferably MeSH terms.
4. **Introduction:** Describe the condition and aim of the CPG review.
5. **Development process of the CPG:** Describe the development process of the CPG, e.g.: who are the team members involved, what methodology was used, how was the evidence gathered, how was the decision made on the recommendations, was the outcomes validated, how was the CPG disseminate and implementation, etc. Follow the AGREE Reporting Checklist (<https://www.equator-network.org/wp-content/uploads/2016/03/AGREE-Reporting-Checklist.pdf>) wherever possible.
6. **Key recommendations of the CPG:** Describe the key recommendations primary care doctors should know.
7. **Key changes in the CPG (only applicable for revised CPGs):** Describe the key changes or updates from the previous CPG.
8. **How to apply the CPG into practice in primary care?:** Explain how the CPG can be used in primary care practice.
9. **Case vignettes as examples of application:** Use case vignettes to illustrate the application of the CPG.
10. **Conclusion:** Summarise the key learning points.
11. **Acknowledgements:** Acknowledge the people who have contributed significantly to the study (but do not qualify for authorship).
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15. **How does this paper make a difference in general practice?:** This section should be written in bullet points (up to five points) and must not exceed 100 words.
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Test Your Knowledge

A Test Your Knowledge article should be relevant to primary care and preferably be about less-commonly seen cases that have an educational value for practising doctors. The length should **not exceed 1000 words and no more than 20 references**. If the article involves a patient, the authors must ensure that the patient's identity is protected both in the texts and pictures; and this patient consent form must be signed and uploaded during submission. Please include the following sub-headings in the manuscript:

1. **Title:** State the title in a question format.
2. **Abstract:** Unstructured abstract between 100-250 words.
3. **Keywords:** 3-5 keywords, preferably MeSH terms.
4. **Case Summary:** Describe the case.
5. **Questions:** State the questions.
6. **Answers with discussion:** Provide the answers and discuss them with support from the literature.
7. **Acknowledgements:** Acknowledge the people who have contributed significantly to the study (but do not qualify for authorship).
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12. **References:** Refer to the References section below for more details.

Letter to Editor

A letter to the editor should be of relevance to primary care and in response to an article or topic published in previous issues of this journal. The length should **not exceed 1000 words and cite no more than 20 references**. Please include the following sub-headings in the manuscript:

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2. **Keywords:** 3-5 keywords, preferably MeSH terms.
3. **Main text:** Start the manuscript with "Dear editor:". There is no specific required heading. Authors can create any sub-headings as necessary.
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A Moment in the Life of a Family Physician

We encourage submission of a short narrative to share perspectives, voice, views and opinions about a family physician's experience that has affected their practice or life. It could be about being a doctor, educator, administrator/management, researcher, student or even patient. This type of article should be a **reflective piece of about 500 words in length**, and can be accompanied with photo(s). The journal also accepts articles which anchor on the photo(s) as the main content, this can be accompanied with captions (not more than 100 words) that describe the photo(s) with author's reflection on it.

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- **Standard journal article-Corporate Author:** International Committee of Medical Journal Editors. Uniform requirements for manuscripts submitted to biomedical journals. *N Engl J Med.* 1997 Jan 23; **336**(4):309–316. doi:10.1056/NEJM199701233360422
- **Books and other monographs-Personal Author(s):** Stewart M, Brown JB, Weston WW, et al. Patient-Centered Medicine: Transforming the Clinical Method. Thousand Oaks, California: Sage Publications; 1995.
- **Books and other monographs-Corporate Author:** Wonca International Classification Committee. International Classification of Primary Care, ICPC-2. 2nd ed. Oxford: Oxford University Press; 1998.

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 1. Nathan AM, Teh CSJ, Jabar KA, et al. Bacterial pneumonia and its associated factors in children from a developing country: A prospective cohort study. PLoS One. 2020;15(2):e0228056. Published 2020 Feb 14. doi:10.1371/journal.pone.0228056
 2. Author, 2019
 3. Author, 2016
 4. Hashim S, Ayub ZN, Mohamed Z, et al. The prevalence and preventive measures of the respiratory illness among Malaysian pilgrims in 2013 Hajj season. J Travel Med. 2016;23(2):tav019. Published 2016 Feb 8. doi:10.1093/jtm/tav019
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Plenary Abstracts

- 1 **25 years of FMS Service in Malaysia- what has been achieved?**
Dr. Nik Mazlina Binti Mohammad
- 2 **Primary Care in the 'new normal' era - Overcoming the challenges**
Dr. Mastura Bt Ismail
- 3 **Maternal & Child Health in the Sustainable Developmental Goals – How are we doing now?**
Dato' Dr. Narimah Awin
- 4 **Surviving the mental health pandemic- How can Primary Care play a role to embrace the impact?**
Dr. Hazli Bin Zakaria
- 5 **Managing Primary Healthcare in Sabah - reaching the unreachable; the untold stories**
Datuk Dr. Christina Rundi
- 6 **Embracing the changes Post Pandemic in Primary Care - Are we equipped and prepared for the revolution?**
Dr. Sri Wahyu Bt Taher

Symposium Abstracts

- 1 **Ending Tuberculosis by 2035– does the combat against latent TB helps?**
Dr. Taufiq Rosli
- 2 **Battling against Multidrug Resistant Tuberculosis, are we in the winning team?**
Dr. Kunji Kannan A/L Sivaraman Kannan
- 3 **Bronchial Asthma –what is happening at the other end?**
Dr. Hema Yamini Devi A/P Ramarmuty
- 4 **Rheumatoid arthritis in Primary Care – how can we play a role in overcoming the socioeconomic issues?**
Dr. Hairul Hadi Bin Ariff
- 5 **Knee OA – importance of early intervention**
Mr. Aaron Gerarde Paul
- 6 **Frailty in Primary Care – an introduction to the pictorial Fit Frail Scale (Malay version)**
Dr. Sally Suriani Ahip
- 7 **Long Covid syndrome – The sequelae**
Dr. Nor Arisah Misnan
- 8 **Secondary traumatic stress due to Covid-19 pandemic, a hidden volcano**
Dr. Pang Tze Ping
- 9 **Translating benefits of vaccine to the public – How to confront the vaccine-hesitant population?**
Dr. Suhazeli Bin Abdullah
- 10 **Managing Gastroesophageal reflux disease, what's not to be missed?**
Datuk Dr. Raman A/L Muthukaruppan Chettiar
- 11 **Hepatitis B Prevention Mother to Child Transmission – A Sabah experience**
Dr. Zaiton Binti Yahaya

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Dr. Wong Ping Foo
- 13 **Contemporary diagnosis of Rheumatic heart disease**
Dr. Liew Hounq Bang
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Dr. Wong Koh Wei
- 15 **Patient-Centred Care in Chronic Disease**
Dr. Lee Wai Khew
- 16 **Confidential Maternal Death Enquiry – How can Primary Care prevent it?**
Datuk Dr. Soon Ruey
- 17 **Obstetric Venous Thromboembolism (VTE) – the roles of Primary Care**
Dr. Carol Lim Kar Koong
- 18 **Advanced Maternal Age - why is it important to address them?**
Dr. Haryati Hamzah
- 19 **Screening and approach to Dementia in Primary Care**
Dr. Gordon Pang Hwa Mang
- 20 **Elderly and nutrition**
Pn. Mahani Mohamad
- 21 **Rehabilitation for elderly in primary care - An approach from Occupational Therapist**
Pn. Racheal Reyes
- 22 **Stimulant use disorder**
Dr Norsiah Bt Ali
- 23 **Impact of screen time on child development & mental health**
Dr. Jasminder Kaur A/P Amarjit Singh
- 24 **Community Psychiatry – a bridge between Psychiatry and Primary Care**
Dr Siti Hazrah Bt Selamat Din
- 25 **Kempen Imunisasi Polio Sabah (KIPS) – How we handled an emergent epidemic?**
Dr. Muhammad Bin Hj Jikal
- 26 **Child marriages & its legal implications**
ACP Ang Seow Aun
- 27 **Tuberculosis in children- pearls, pitfalls, and how can we improve the outcome?**
Dr. Wong Ke Juin
- 28 **Approach in managing resistance & refractory Hypertension**
Dr. Tee Hwee Ching
- 29 **Managing Menstrual Disturbance: an endocrine perspective**
Dr. Lau Bik Kui
- 30 **Management of obesity – What’s new in town?**
Dr. Teoh Soo Huat

- 31 **Paediatrics Ocular Diseases – How can Primary Care make a difference**
Dr. Shuaibah Ab Ghani
- 32 **Evolution of infertility therapy**
Datuk Dr. M. Hatta Tarmizi
- 33 **Professional development in Primary Care**
Dr. Iskandar Firzada Bin Osman
- 34 **Top tips in handling underwater emergencies**
Dr. Muhamad Na'im Bin Ab Razak
- 35 **Medical coverage for international / adventure sports**
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PLENARY ABSTRACTS

Plenary Abstract 1

25 Years of FMS Service in Malaysia- What Have Been Achieved?

Nik Mazlina M¹

¹Primary Care Section ,Ministry of Health ,Malaysia

Primary health care is the key to attain Health for All as stated in the Alma-Ata Declaration of 1978. Health systems with strong primary health care at its core improve population health through integration of primary care services with public health. This results in lower health costs, better patient experience, fewer unnecessary hospital admissions and greater socioeconomic equity.

Recognizing the importance of having a robust primary health care system, Malaysia started its masters training programme in Family Medicine in 1993. With the inception of the first batch of Family Medicine Specialists (FMS) in 1997 the country was able to provide specialist services at the primary care level.

To date there are 924 FMSes in the country, including 625 currently serving in 397 health clinics under the Ministry of Health. The aim is to eventually place one FMS in 1060 health clinics throughout the country. Parallel pathway training for Family Medicine was introduced to help meet this demand.

FMSes play an integral role to improve health service, health outcomes and ensure quality of health care delivery. This is achieved through active involvement in training, clinical audits and also research. They have contributed extensively in the development of Clinical Practice Guidelines and are members of various technical working groups as subject matter experts in their field.

FMSes are highly sought in times of crisis and often given the mandate to head entourage. Some have received recognition and accolades not only within the country but internationally as well. This year marks the 25th year of the Family Medicine Specialty in the Ministry of Health Malaysia. Family Medicine Specialists have come a long way since its humble beginning and shall continue to strive for excellence and rise to the challenge of the future.

Plenary Abstract 2

Primary Care in the 'new normal' era - Overcoming the challenges

Mastura Ismail¹

¹Family Health Development Division, Ministry of Health, Malaysia

At this moment, the only certainty seems to be more uncertainty as we find ourselves coming to grips with a "new normal." Primary care is not exempt from the strain facing so many sectors of the Malaysian economy, and health

care in particular. Nevertheless, as the current situation continues to evolve, the impact of COVID-19 will be felt far beyond its population-based effects on morbidity and mortality, with sequelae including: i) severely strained management of chronic disease, ii) increase in and worsening of mental health and associated effects and iii) exacerbation in difference of an already current and uneven delivery of medical and health care services for vulnerable populations. Despite the challenges being suffered during this pandemic, the practice of primary care stands to play a significant role in the management of these issues, employing previously underutilized technology such as telehealth, and overcoming the financial and physical limitations imposed by the pandemic on a routinely clinic-based patient care. During the crisis focus was placed on scaling-up of primary care capacities through well-designed innovation equipped with digital technology which helped deliver a successful health system response. The innovations introduced need to be sustained to make health systems more resilient against future public health emergencies.

Plenary Abstract 3

Maternal & Child Health in the Sustainable Developmental Goals – How are we doing now?

Narimah Awin¹

¹UNFPA Malaysia

SDG 3.1 is to reduce maternal mortality; SDG 3.2 is to eliminate preventable deaths of children under-5. These replace MDG5 and MDG4 respectively. The question "how are we doing?" implies the need to measure, and each SDG has measurable targets and indicators. SDG 3.1 is to reduce maternal mortality ratio (MMR) to less than 70/100,000 livebirths; SDG 3.2. is to end preventable deaths among under-5, measured by reduction of under-5 mortalities (not more than 25/1,000 livebirths) and neonatal mortality (not more than 12/1,000 livebirths). Additionally, there is the call for ending preventable maternal death by 2030. Getting reliable data is a problem for many countries. The global targets are averages that apply to all countries, among which there are huge disparities. There are also disparities within countries. For universal comparison, data from countries are collected by WHO which publishes them annually in World Health Statistics (WHS). The UN encourages countries to conduct Voluntary National Review (VNR) for the SDGs. Malaysia has conducted 2 VNRs (2017 and 2021). For Malaysia, WHS 2021 reported MMR of 29/100,000; Under 5 mortalities of 9/1,000 and neonatal mortality of 5/100,000. Several factors contribute to Malaysia's achievement in these goals; however, achieving further reduction is challenging. It is to be noted that SDG3.1 and SDG3.2 are influenced by SDG5 (achieve gender equality and empower women) especially Target 5.6. Finally, the impact of COVID19 pandemic on MCH is noted.

Plenary 4**Surviving the mental health pandemic - How can Primary Care play a role to embrace the impact?****Hazli Zakaria¹***¹Alaminda Healthcare Berhad*

The impact of COVID-19 pandemic on healthcare services including mental health have been documented and it will likely continue to be a significant challenge during the endemic. In this presentation, the effects of the pandemic on various aspects of psychiatric services, including patient and carers care, and other service providers will be briefly reviewed. The main focus of discussion will be on the role of primary care services in the integrated mental healthcare ecosystem post pandemic.

In addition to being the first point of contact with the health system, primary care doctors are positioned to play a unique and vital role after the pandemic, through prevention, detection, and monitoring for early signs of psychological distress, treatment to less complex cases and continuity of care for other health needs. COVID 19 pandemic offers huge opportunities to learn for us to improve on the existing services and more important to better prepared to face the future including another pandemic. Possible innovative solutions to the pandemic challenges are also discussed. Strong commitment from all parties involved is an important component together with the right investments and the right policy reforms towards fulfilling the needs of service users.

Plenary Abstract 5**Managing Primary Healthcare in Sabah - reaching the unreachable; the untold stories****Christina Rundi¹***¹Public Health Physician, Sabah*

The State of Sabah, known for its geographical features of mountains, islands, and tropical rainforest, is also highly diverse demographically and culturally. There are certain social groups such as the indigenous populations in remote areas, nomadic or semi-nomadic populations, and migrant workers from nearby countries, which are collectively referred to as “hard-to-reach” in this paper. Many of these groups are of low socioeconomic status, highly mobile, and may not have access to health and other social services. This paper highlights some of these limitations and the ongoing efforts to ensure that they are not left behind.

Plenary Abstract 6**Embracing the changes post pandemic in Primary Care – Are we equipped and prepared for the revolution?****Sri Wahyu Taher¹***¹Klinik Kesihatan Simpang Kuala, Kedah*

As we battled the COVID-19 pandemic war, many of the essential services in primary care were severed. The

management and care of non-communicable diseases (NCDs) were not optimized as delivery of care were mostly written prescriptions and not actual physical consultations. Some primary care clinics resorted to virtual consultations.

These changes were responses to mobilization of human resources to curb the spread of COVID-19 infection. Primary health care providers were pivotal in the infection and prevention control (IPC) activities that allowed us to enter the endemic phase. However, IPC activities utilized human resources to the extent of compromising chronic diseases care. This was made worse by the COVID-19 vaccination programs throughout the country thus the sub-optimal care was amplified.

The pandemic has revolutionized primary care and it is now seen to be the most important component of the health care system evident by various initiatives pertaining to curbing the pandemic. Nevertheless, are we prepared to resume chronic care services and simultaneously continue to provide COVID-19 initiated activities? Despite the added responsibilities, human resources, technology and infrastructural support remain in status quo in primary care clinics. Do we have the capacity to now win the battle in managing chronic diseases? What are the changes that need to occur? Would having a dedicated primary care program at ministerial level instigate and facilitate the primary care revolution and transformation? Would the Health White Paper mooted by YBMK be able to equip primary care in facing the challenges post pandemic era?

There is a lot to be achieved and definitely primary care should be the centre of the Health White Paper proposal for we have proven to the people of Malaysia, without primary care the health system will collapse. Thus, primary care must transform and we are ready to face the complexity of chronic care for the future of Malaysia.

SYMPOSIUM ABSTRACTS**Symposium Abstract 1****Ending Tuberculosis by 2035- Is the combat against latent TB helps?****Taufiq Rosli¹***¹Department of Respiratory, Hospital Queen Elizabeth, Sabah*

The “End TB Strategy” of the World Health Organization (WHO) seeks to reduce TB incidence to fewer than 10 cases per 105 people per year by 2035. The primary approach for achieving this goal is to improve efforts to find and treat people with active TB disease, conduct universal screening of individuals at high risk, and provide preventive therapy for those at risk of progressing to active TB disease. A longstanding tenet of TB pathogenesis has been that *M. tuberculosis* exists (MTB) in either a metabolically inactive latent state or a metabolically active disease state. In this framework, about 5% of people infected with TB progress rapidly to active disease, while most people develop a latent infection and remain at risk for progression to active disease. The WHO defines Latent tuberculosis infection (LTBI) as a

state of persistent immune response to stimulation by *M. tuberculosis* antigens without evidence of clinically manifested active TB. According to recent estimates, approximately one-quarter of the global population is infected with LTBI. In a small fraction (~5%–15%), reactivation occurs, often within the first 2 to 5 years following infection. Reactivation is the process by which a subclinical latent infection transitions into active TB disease. Thus, individuals with LTBI represent a major reservoir for new active TB cases. LTBI is treated with one or more medications to kill the live bacteria that have been contained (controlled) by the immune system. Treating LTBI greatly reduces the risk of the infection progressing to active TB later in life (i.e., it is given to prevent reactivation TB disease) up to 90%.

Symposium Abstract 2

Battling against Multidrug Resistant Tuberculosis, are we on the winning team?

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¹Department of Respiratory, Hospital Queen Elizabeth, Sabah

The State of Sabah, known for its geographical features of mountains, islands, and tropical rainforest, is also highly diverse demographically and culturally. The battle against TB has been ongoing since the very beginning of human civilization. It is an adversary that deserves our utmost respect. Ever since the first anti tuberculosis drug was found in 1944, the battle has raged between efficacy and resistance against the MTB foe. Now more than ever, this long-standing war seems to be entering a more crucial phase whereby the TB bacilli seem to be developing ever more increasing resistance to every weapon in our arsenal. In this talk, I would like to address the guidelines that we have (WHO, IUATBLD and from countries like South Africa and our own) and the practicality of administrating them at the ground level. We will also discuss what the situation is like in our parts of the world as well as to answer the burning question, are we on the winning team? We will be using a lot of the material that was obtained by the collaboration of the Respiratory Team in Queen Elizabeth Hospital with the Family Medicine Specialist of Sabah team to come up with the Sabah Tuberculosis Handbook DR TB chapter.

Symposium Abstract 3

Bronchial Asthma: What is happening at the other end?

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Asthma is a major non-communicable disease affecting both children and adults. Statistics from WHO show that in 2020, deaths due to asthma in Malaysia reached 1013 or 0.6% of total deaths. Primary care physicians play a pivotal role in the diagnosis and management of bronchial asthma in its milder forms. Severe asthma, on the other hand is usually managed in tertiary care settings. Severe asthma is defined as uncontrolled asthma despite adherence to optimized high

dose ICS-LABA (Inhaled Corticosteroids-Long Acting Beta2 Agonist) and treatment of contributory factors. Severe asthma represents a diagnostic and therapeutic challenge. It imposes a huge economic burden to the community and health care system. A multidimensional assessment of severe asthma that consists of confirming the diagnosis early, determining the severity and phenotype as well as identifying and treating comorbidities and risk factors has been proposed by the GINA guidelines. Ongoing collaborative care between the primary care physicians, general physicians, respiratory physicians, and other health professionals must be maintained to implement this multidimensional assessment of severe asthma. This will result in better patient outcomes. My talk will be on severe asthma and how we can work together with primary care providers to identify patients who are at risk of developing severe asthma. I would also discuss on how primary care providers could contribute to the multidimensional assessment and management of severe asthma.

Symposium Abstract 4

Rheumatoid arthritis in Primary Care – how can we play a role in overcoming the socioeconomic issues?

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Rheumatoid arthritis (RA) is a chronic, inflammatory, systemic autoimmune disease, affecting the joints with varying severity among patients. Left untreated, there is a high risk of significant deformity and disability. Over the past decade, much has been learned of the pathophysiology and treatment of RA. The development of disease-modifying anti-rheumatic drugs (DMARDs) such as methotrexate and biologic agents has changed the disease course. Since it is less common to see RA patients with deforming joint complications due to the efficacy of these therapies, there has been a shift of emphasis toward diagnosing the disease much earlier.

Furthermore, multiple studies have shown that early intervention is critical for achieving optimal outcomes. Medical practitioners including primary care physicians are encouraged to recognize this and initiate an early plan of action. Treatment goals are to reach remission or low disease activity and to prevent functional decline and halt disease progression. Familiarity with DMARDs therapy is an essential component of modern management. This presentation will review the important features of RA, including its clinical manifestations and predisposing factors, and will present a summary of the differential diagnoses that mimic RA, the work-up and treatment of the disease, and one-approach to the diagnosis of RA which may improve access to subspecialty care.

Symposium Abstract 5

Knee OA – importance of early intervention

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Knee osteoarthritis is a common condition that is seen in

frequently in outpatient clinics. While not as serious as a malignancy or a fracture, it does affect activities of daily living significantly. This talk will elaborate on its causes and its management, discuss about Glucosamine, curcumin and hyaluronic acid, and address some of the current controversies as well, such as platelet rich plasma, and stem cells. Most patients when they present early, can effectively be managed in an outpatient setting.

Symposium Abstract 6

Frailty in Primary Care – an introduction to the Pictorial Fit-Frail Scale (Malay version)

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¹KK Kota Samarahan, Sarawak

Frailty is a state of reduced physiological reserve and increased vulnerability to adverse health outcomes. From a policy and public health perspective, frailty is prevalent and of growing significance because it places an increased demand on health resources. However, frailty is dynamic and improvement is possible through early identification and management. Frailty screening improves the opportunity for timely intervention.

The Pictorial Fit-Frail Scale (PFFS) is a frailty screening tool developed specifically using pictograms rather than words in order to overcome language and health literacy barriers. The PFFS is reliable when administered by physicians and nurses within specialist geriatric medicine ambulatory settings.

The PFFS was recently translated to Malay language (PFFS-M) and validated in the Malaysian primary care setting. The PFFS-M was shown to be reliable and valid tool for frailty screening within the primary care setting, including when self-administered by patients and carers with low literacy and completed by primary care staff who do not have tertiary qualifications. The PFFS has potential benefits as frailty screening in the Malaysian primary care.

Symposium Abstract 7

Long COVID Syndrome- The sequelae

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Long COVID syndrome is a condition characterised by long-term consequences persisting or appearing after the recovery of COVID-19 infection. Also known as post-COVID-19 syndrome, post-acute sequelae of COVID-19 or chronic COVID syndrome, the condition can be detrimental to health. A wide variety of symptoms such as fatigue, headaches, anosmia, cognitive dysfunction to as severe as fibromyalgia or chronic fatigue syndrome have been reported with variable duration and not much data available on effective treatment. With nearly 5 million people living in Malaysia has been infected with COVID-19, the number of cases suffering from Long COVID will be a burden to national healthcare system. It was estimated that more than 40% of COVID-19 survivors across the world have or had long term effect after recovering

from the illness. This group of patients will be presenting with various ailments and symptoms of concern and alternative diagnosis should be excluded before labelling them as Long COVID. Hence, general practitioner should be equipped with the knowledge of identifying Long COVID syndrome, investigations, and the management. In the absence of research into therapies and care pathways for long COVID, a guideline on post COVID-19 management protocol was launched in July 2021 to facilitate healthcare providers in managing post COVID cases. Long COVID should be an integrated care with primary care physician playing a key role in the multidisciplinary team for a holistic approach.

Symposium Abstract 8

Secondary Traumatic Stress due to COVID-19 pandemic, a hidden volcano

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Trauma is a multigenerational process that can come in physical, threatened, or actual violence. Due to the Covid-19 pandemic trauma and domestic violence has been further exacerbated due to lockdowns, leading women to enter cycles of interminable entrapment with their aggressors. This has had multiple adverse consequences on women, leading to higher levels of depression, anxiety, and post-traumatic stress disorder (PTSD). Adding insult to injury, due to reduced access to healthcare caused by lockdown logistic inconveniences, the mental health pandemic is a silent pandemic that has yet to explode. This talk explores the theoretical and practical sequelae of the domestic violence and PTSD pandemic secondary to Covid-19 and provides some practical interventions to address this.

Symposium Abstract 9

Translating beneficence of vaccine to the public – How to confront the vaccine-hesitant population?

Suhazeli Abdullah¹

¹Klinik Kesihatan Tengkawang, Terengganu

Vaccination prevents around 2–3 million deaths worldwide every year from infectious diseases such as diphtheria, tetanus, pertussis, influenza and measles. Despite the efficacy of vaccines, vaccine hesitancy — the belief that a vaccine may be unnecessary, ineffective or unsafe — is common (reported in more than 90 countries, at all income levels), and growing to such an extent that in 2019, the World Health Organization (WHO) listed vaccine hesitancy as one of the top ten threats to global health.

Vaccine hesitancy reduces vaccine uptake and compromises herd immunity (i.e., where a high proportion of a population is vaccinated against an infection and thereby protected and, consequently, it is less likely that an infectious individual will have contact with a susceptible individual and transmit the infection). When herd immunity is compromised, disease outbreaks among the unvaccinated population are likely.

Three main factors which lead to vaccine hesitancy; 1- Lack of trust in the safety and effectiveness of vaccines and the system through which they are delivered; this includes the reliability and competence of healthcare professionals, health services and/or the motivation of policy makers who make decisions about vaccines.; 2 - Low perceived risk of vaccine-preventable diseases, leading to an assumption that vaccines are not needed; and; 3 - the degree that physical availability, affordability, willingness-to-pay, geographical accessibility and ability to understand (language and health literacy) influence uptake of the vaccine.

The Primary Care Providers (PCPs) play important role in reducing vaccine-hesitancy. PCPs should seek to understand the factors that contribute to vaccine hesitancy and how to support patients in their decision-making process to guide them towards vaccine acceptance and confidence. The PCPs should also acquire the knowledge and be proactive in addressing the current issues and more importantly, scaling up effective communication skills.

Symposium Abstract 10

Managing Gastroesophageal reflux disease, what's not to be missed?

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Gastroesophageal reflux disease (GERD) is defined as a condition that develop when reflux of stomach contents cause troublesome symptoms and/or complications. Non erosive reflux disease (NERD) is presence of classical symptoms without visible oesophageal mucosal injury. On the other hand, Refractory GERD is defined as inadequate or no relieve of symptoms despite 8 weeks of Proton Pump Inhibitor (PPI) treatment. Pathophysiology of GERD is multifactorial which includes impaired lower oesophageal sphincter relaxation, impaired mucosal defence mechanism and impairment in gastric emptying. GERD is essentially a clinical diagnosis however, in certain complex cases, endoscopy and pH study give added benefits. Treatment of GERD includes life style modification, pharmacologic therapy and intervention via endoscopy or surgery. Management goals are to relieve symptoms, maintain remission, heal esophagitis and prevent complications.

Symposium Abstract 11

Hepatitis B Prevention Mother to Child Transmission – A Sabah experience

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¹Klinik Kesihatan Sandakan, Sabah

The prevalence of Hepatitis B in Sabah has been increasing with more than 1000 cases detected yearly. Sabah faces unique challenges of screening, diagnosis and management of Hepatitis B due to its geographical and socioeconomic profile. In line with the National Strategic Plan for Hepatitis B and C (NSPHBC) Malaysia 2019-2023, efforts to reduce the burden

of Hepatitis B in Sabah has been undertaken. This is guided by a common roadmap produced by our multidisciplinary team with a current focus on the prevention of maternal-to-child-transmission.

Symposium Abstract 12

Diagnostic methodologies in Metabolic Associated Fatty Liver Disease - How can we screen for more at Primary Care?

Wong PF¹

¹Klinik Kesihatan Cheras Baru, KL

Metabolic associated fatty liver disease (MAFLD) is a novel concept proposed in 2020 which replaced the term Non-alcoholic fatty liver disease (NAFLD). The diagnosis of MAFLD is based on the detection of hepatic steatosis together with the presence of at least one of three criteria that includes overweight or obesity, Type 2 diabetes mellitus or clinical evidence of metabolic dysfunction, such as an increased waist circumference and an abnormal lipid or glycaemic profile. The paradigm shift in the definition has allowed a better identification of patients with MAFLD in Primary care using simple tests which is potentially cost effective and easily accessible. With this, it is hoped that patient with MAFLD can be diagnosed and managed early to reduce the disease burden.

Symposium Abstract 13

Contemporary diagnosis of Rheumatic heart disease

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¹Department of Cardiology, Hospital Queen Elizabeth II, Sabah

The rheumatic heart disease (RHD) is the only long term sequelae of acute rheumatic fever (ARF) and it remains as a prevalence disease in low & middle income countries, even in indigenous regions of the developed country.

Patients diagnosed with ARF mandate an Echocardiographic assessment at the point of diagnosis and follow up. It is known that even if they lack clinical features, echocardiographic scans always identify subclinical valvulitis. With repeated ARF, eventually it leads to chronic RHD.

The only cost effective treatment is IM injection of Benzathine-penicillin, by preventing recurrence infection of Group B streptococcal infection which causes ARF. This will ultimately retard even regress the progression of RHD. A patient with mild, asymptomatic RHD (subclinical) will benefit the most from this therapy.

However, patients with RHD often lack a history of ARF & are diagnosed at the stage where they are symptomatic & severe.

Unlike diagnosis of ARF, where a well-established criteria like Modified Jones criteria; chronic RHD lacked diagnostic criteria. In 2012, the World Health Federation had released a simplified echocardiographic criteria for it. These diagnostic criteria circumvent the conventional, sophisticated Echocardiographic method of diagnosing RHD.

These criteria take into consideration the patient's demographic and risk factor of rheumatic fever. There are 3 classifications namely: Definitive RHD / borderline RHD (with high risk of rheumatic fever) in individuals less than 20 years old, and definite RHD in individuals more than 20 years old.

With these criteria plus a more readily available Echocardiographic scan nationwide makes massive screening of RHD possible at community level. Ample of experience from other countries that develop large scale screening programs based on these criteria have shown promising results & proves its value.

Symposium Abstract 14

The Golden Kidney – How to preserve its value?

Wong KW¹

¹Department of Nephrology, Hospital Queen Elizabeth, Sabah

The value of our kidneys lies in the number of nephrons and is measured or estimated by glomerular filtration rate (GFR). Unfortunately, unlike gold, nephrogenesis is completed at about 34 – 36 weeks of gestation, and from the age of 30 – 40, the GFR will gradually fall. The value (GFR) is even declining further and faster with the presence of underlying kidney disease especially diabetic kidney disease. The prevalence of chronic kidney disease (CKD) has continued to rise alarmingly globally and in Malaysia. A few measures have been studied and proven to slow down the CKD progression. Hence, to preserve the golden value of the kidneys in patients with CKD, such as blood pressure and sugar control, use of ACE inhibitor or ARB, avoidance of smoking and any potential nephrotoxic agents. Over past 20 years, there had not been much new major development in preserving the kidney function until recently with the discovery of renoprotective effect of SGLT2 inhibitors in addition to ACE inhibitors or ARB. It is important to recognize the early stages of CKD before the GFR falls below the critical level with CKD progresses towards end stage kidney disease (ESKD).

Symposium Abstract 15

Patient-centred Care in Chronic Disease.

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¹Klinik Kesihatan Luyang, Sabah

This presentation will look into what constitutes chronic disease, what does patient-centred care means and how important it is to achieve optimum care for the patient with chronic disease.

Chronic disease by its nature is of long duration, progressive with an asynchronous evolution which changes over time and is complicated with repeated health problems which makes it a challenge to manage. Poorly managed, it will have the impact of reducing life span and quality of life. A good outcome will depend on patient taking ownership of their illness and co-operating in their care. Patient-centred care is an essential element in the chronic care model to engage the patient to participate in their care for optimum outcome. It respects the

patient as a partner in decision making and ensures that the patient's individual preferences, needs and values are taken into account to guide all clinical decisions. Traditionally, patient-centred care is focused on the consultation process. However, it is increasingly clear that besides personal and relationship attributes, factors in the health system also contribute in enhancing the patient-centeredness experience for the patient.

A systematic framework that takes into account patient factors, relationship attributes and structural factors is proposed to enhance patient-centred experience and ultimately achieve the best outcome for the patient.

Symposium Abstract 16

Confidential Maternal Death Enquiry — How can Primary care prevent it?

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¹Department of Obstetrics & Gynaecology, Sabah Woman and Children Hospital, Sabah

Maternal mortality has been declining steadily in Malaysia, however in order to sustain the decline, the Confidential Enquiry into Maternal Deaths (CEMD) was started in Malaysian in 1989 and the first report was released in 1991. These enquiries help identify the factors that lead to the maternal deaths and as a result, many new SOPs, guidelines, preventive and promotive programmes were started.

These new guidelines and programmes were then delivered through a network of hospitals, polyclinics, health centres and rural community clinics.

The role of the Primary Care in assisting these programmes and policies that help reduce maternal deaths centres mainly on:

- Education of the Pregnant Mothers
- Diagnostic and Investigative Tests to identify the High Risk Mother Training of Doctors and Nurses
- Timely Referrals to a Secondary/ Tertiary Hospital Postpartum Care

Postpartum care or sometimes known as the 4th Trimester is especially important as it has been shown that up to 2/3 of mothers who die, die in the post-partum period. An example of the importance of postnatal care has been on the prevention of Venous Thromboembolism and Pulmonary Embolism. Policies on Thromboprophylaxis have been created and funding have given for drugs. However, to date we still struggle to ensure that all mothers receive adequate Thromboprophylaxis mainly due to patients' reluctance and ignorance as well as the lack of staffing.

Medical disease in pregnancy is now the leading cause of Maternal Deaths in Malaysia. To prevent these deaths, the Pre Pregnancy clinic referrals need to be strengthened.

Symposium Abstract 17

Obstetric Venous Thromboembolism – the roles of Primary Care

Carol LKK¹

¹Department of Obstetrics & Gynaecology, Hospital Ampang, Selangor

Obstetric pulmonary embolism has been consistently one of the two major causes of direct maternal deaths in Malaysia for many years, the other cause being postpartum haemorrhage. Prevention and management of obstetric venous thromboembolism (VTE) has been challenging and involves multipronged approaches. As the thromboembolic risk rises 4-5 times higher the moment a woman embarks on her pregnancy, the primary care's roles in tackling obstetrics VTE cannot be underestimated. Creating local guideline is essential and a second edition of Malaysia MOH guideline on Prevention and Management of Obstetric VTE has been released in 2018. Various training has been conducted to familiarize the users with this guideline and its implementation. By applying VTE risk-scoring system, this allows risk stratification of pregnant women from the time of booking for antenatal care. Appropriate level of care will be carried out according to the risk category. The next step would be obstetric thromboprophylaxis, ideally to commence from Primary Care setting itself. Thereafter, these patients will be under close monitoring by the primary care and hospital teams.

The Primary Care team indeed plays an important role in identifying at-risk patients as well as introducing obstetric thromboprophylaxis for those needing it. The subsequent follow-up is key to ensure a good pregnancy outcome. Not forgetting the importance of pre-pregnancy care as a component of a wholesome pregnancy care. And with this, patients are very often educated and empowered toward thromboprophylaxis. With adherence to obstetrics thromboprophylaxis program, we have seen the reduction of VTE specific maternal deaths in 2019.

Symposium Abstract 18

Advanced maternal age – Why is it important to address them?

Haryati H¹

¹Klinik Kesihatan Tawau, Sabah

Advanced maternal age is defined as age 35 years and older. A rising trend of pregnancy at this age group has been observed contributed by delay in marriage and seldom for women to have their own cut-off point for completing the family. Most studies reported the advanced maternal age is associated adverse obstetrical outcome that are pregnancy-induced hypertension, pre-eclampsia and gestational diabetes mellitus. The risk of caesarean delivery also noted to be high. In term of fetal outcome, was also found to be a major risk factor for preterm delivery, low birth-weight, low fifth minute Apgar score and perinatal death. In view of the findings, special attention should be paid to the antenatal mothers aged 35 years and older, even to those without any pre-existing medical problems. The couples should have been counselled about the risk of advanced maternal age pregnancy during their consultation. Therefore, it is better for health care providers to counsel couples, who seek to have a child in their later ages, about the risks of advanced maternal age pregnancy. This could be done during pre-pregnancy care and counselling

in primary care setting. The couples should be educated & emphasized regarding the use of appropriate contraception to reduce pregnancy at the advance age and to improve woman's health before deciding to get pregnant. Thus, the pre pregnancy care and counselling in primary care should be promoted and empowered.

Symposium Abstract 19

Screening and approach to Dementia in Primary Care

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¹Department of Geriatrics, Hospital Queen Elizabeth, Sabah

Dementia is a condition that affects one's memory, problem solving abilities, behaviour and communication. Dementia is a common condition among older adults all over the world and is expected to increase drastically due to rapid ageing. WHO global dementia action plan 2017-2025 have highlighted dementia as a public health priority. The global plan aims to improve the lives of people with dementia (PwD), their families and the people who care for them, while decreasing the impact of dementia on communities and countries. Our National Health & Morbidity Survey 2018 finding suggests that dementia is very common and under-diagnosed in Malaysia. Symptoms and sign of dementia are commonly mistaken as sign of normal aging. It is important for early diagnosis, appropriate treatment and care support to assist PwD to continue live well in the community. This talk will explore on primary care approach on screening, evaluation and management strategies of dementia.

Symposium Abstract 20

Elderly and Nutrition

Mahani Mohammad¹

¹Klinik Kesihatan Luyang, Sabah

The process of ageing that involves biological, physiological, cognitive, and social changes will have influenced diet intake and health of the elderly. These changes caused them to reduce their food intakes resulting inadequacy in nutrients which indirectly contributes to their declining health.

In view of the elderly are at risk of undernutrition, dehydration, and obesity with comorbidities; medical nutrition therapy involving evaluation of diet status and intervention are necessary to help them reduce the risks.

Risk evaluation for undernutrition in elderly and evaluation of their diet consists of medical history, clinical diagnosis, clinical signs, physical examination, functional status, anthropometric data, biochemical data, and dietary data to identify the problems and subsequently planned for intervention.

Diet intervention that are given to the elderly involves planning for their diet plan that are suitable for the calorie requirements, macronutrients, and micronutrients. Diet with texture modification and therapeutic diet are planned according to their diet status and diseases. For the elderly who can't take orally, a complete diet supplement will be given. If oral diet supplements are inadequate, other supportive diets will be given.

Diet education are given to the elderly patients and caretakers to ensure their diet plans are followed and improves their health status. Monitoring and re-evaluation of diet status will be done to ensure the goals in the planned diet are achieved.

Symposium Abstract 21

Rehabilitation for Elderly in Primary Care- An Approach from Occupational Therapist

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¹Hospital Queen Elizabeth, Sabah

Perspective on daily functional activities for every individual is different. Roles and methods in carrying out the tasks also will be different. The elderly population are frequently associated with changes in their physical, cognitive, and psychological. These changes may have restricted them in their daily activities like bathing, eating, clothing, walking, and others. The elderly also is at risk for falls at home.

Evaluation on daily functional activities and cognitive are needed to know their level of independency in their daily activities while home evaluation is carried out to identify the potential risk for falls at home and measures to avoid harm if it happens.

Treatment plan is made using a holistic approach. Interventions are carried out to increase the level of independency among the elderly by encouraging them to get involved in various daily activities based on their willingness, necessity, and expected programs that needed to be achieved for the individual.

Modifications in certain tasks and environment especially at home are necessary to support the elderly to be optimally independent. The usage of necessary aids is important to be addressed. Education to the elderly patients and their caretakers for regular training also is crucial and needed to be emphasized.

Symposium Abstract 22

Stimulant Use Disorder

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The world is facing never ending story regarding substance use as drug industry is a lucrative business. There are three main groups of substances: depressants, stimulants and hallucinogens. Substance use change from time to time. Heroin use has been quite stable in countries all over the world. Stimulants such as methamphetamine now seem more predominant in countries in South East Asia especially Malaysia, Thailand and Philippines.

Heroin has been the predominant illicit substance used in this country since 1970s but the trend has changed to stimulants since late 2000s. Stimulants use is quite rampant in certain part of the country especially in the Borneo. Many take stimulants for extra energy to do certain task or for job purpose. There are short term and long term sequelae of stimulants use ranging from medical, psychosocial, economical & legal consequences. The Diagnostic Statistical

Manual (DSM) V classify severity of substance use disorder (SUD) as mild, moderate, severe according to certain scoring. Specifically, for stimulants, some of short-term consequences during intoxication phase are 'rush' period characterized by euphoria, hyper arousal & alert state, being unusually active & energetic followed by 'crash' period and withdrawal that can last for a month or more.

In long run, chronic stimulant use can lead to various medical complications such as cardiovascular, neurological, nutritional and mental health issues. Hence, it is very important for health care workers especially doctors to be familiar and knowledgeable with features and management approach of stimulants use and problems that may arise.

Symposium Abstract 23

Impact of Screen Time on Child Development & Mental Health

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Studies have shown that longer duration of exposure to screen time adversely affects child development and mental health. It has been demonstrated that longer screen times affects all domains of child development namely physical health, social competence, speech and language development, communication skills, cognition as well as emotional regulation and maturity. Children who spent more than the recommended amount of time on screens were found to be less curious, more distractible and had difficulty in completing given tasks.

Adolescents with high screen times were twice as likely to be diagnosed with depression, anxiety, needing mental health consultation or have been medicated for a psychological or behavioral issue. This raise concerns over the long-term impact of screen time on the overall development and mental well-being of children. There is an urgent need for health care practitioners to fully understand the recommendations surrounding screen time in children and the measures that need to be taken in order to curb this problem before its associated complications take hold. When it comes to screen time, the most important message is that 'prevention is key'.

Symposium Abstract 25

Bridging Psychiatry & Primary Care in Community Mental Health Services

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The treatment gap for mental health in lower and middle-income countries is enormous, where studies found that 90% of people with mental health issues in these regions did not receive treatment. To close this gap, WHO recommends that the focus of mental health services in medium and low-resource settings should be on establishing and improving the capacity of primary care to deliver mental health care

with specialist care back-up. Through regular trainings and continuous support from specialists in psychiatry, the primary healthcare staff can be empowered with abilities to perform screening and assessment, and provide mental health treatment to the community they serve. In Malaysia, the integration of mental health services in primary care setting has been implemented since 1997, which include preventive interventions and mental health promotions such as early detection and treatment, follow-up of stable cases, and psychosocial rehabilitation services. This important role of the primary care ensures that people with mental illness are maintaining well in the community, hence promoting social inclusion and human rights for this group while simultaneously reducing the stigma that heavily surrounds the diagnosis.

Symposium Abstract 24

Kempen Imunisasi Polio Sabah (KIPS) – How We Handled an Emergent Epidemic

Muhammad J¹

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In December 2019, the confirmation of Malaysia's first polio case in 27 years became a major concern after sequencing of an isolate by VIDRL Australia reported detection of Circulating Vaccine Derived Polio Virus Type 1 (cVDPV1). Subsequently, three more cVDPV1 cases were reported in Sabah state through the Acute Flaccid Paralysis (AFP) surveillance. Rapid vaccination response was immediately carried out in the affected locality targeting children who missed their routine vaccination. In March 2020, WHO declared COVID-19 a pandemic and this has greatly affected the vaccination campaign. The overall vaccination coverage was more than 90% for bOPV and mOPV2 vaccines in all the rounds despite having to vaccinate children in a Covid-19 environment. Among the issues and challenges faced were the complexities and uncertainties of COVID-19 pandemic. Activities had to be adapted to adhere to the Covid-19 Standard Operating Procedures (SOP) to prevent risk of COVID-19 transmission. Despite all the restrictions including the enforcement of Movement Control Order (MCO), Ministry of Health through Sabah State Health Department, managed to successfully conduct the Supplementary Immunization Activities (SIA) campaign and closure of the outbreak was declared by WHO in September 2021. The success of the campaign was made possible through full commitment of staff and volunteers, as well as hard work, innovative and creative strategies.

Symposium Abstract 26

Child Marriages and its Legal Implications

Ang SA¹

¹Department Operations & Intelligent Sabah Police HQ

Child marriage robs children, not only of their childhood,

but also of their future. The minimum age of marriage for boys and girls is 18 years old as provided by the Malaysian Civil Law. Native Law recently required the minimum age of 18 for marriages but is lacking in enforcement. However, in Customary Law, there is no minimum age of marriage. This lecture aims to provide an overall understanding about the offences involving rape, sexual offences and investigation procedures pertaining to child marriage.

It also aims to provide an understanding regarding proper procedures for marriage as stipulated under the Law Reform Act, Shariah Law and Native Law, bearing in mind about the offences provided under the Penal Code and Child Act pertaining to sexual offences involving children and the definition of consent under the Law.

It also provides an understanding of the investigation procedures and the need for parties involved to give cooperation to the police and health department and to provide understanding that the final decisions are from the Legal Department.

It is also to create an awareness that combating child marriage is an uphill task that involves many parties, a change of mind sets, and diversion from social norms and traditions that has been passed down for generations. It also includes the issue of poverty and the need to educate children of their rights and the utmost important, of sexual education. Childhood is a right, not a privilege.

Symposium Abstract 27

Tuberculosis in Children – Pearls, Pitfalls and How Can We Improve the Outcome?

Wong KJ¹

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WHO estimated that of 10.0 million new cases of TB in 2018, 1.1 million were children under 15 years old. More than 67 million healthy children have latent TB and are at risk of developing active TB in future. Among all states of Malaysia, Sabah has the highest burden of TB. Unfortunately, TB in children is often missed by clinicians due to their protean presentations and the symptoms often mimic common childhood illnesses. They are often paucibacillary (smear negative) and disseminated in nature especially in young children. Close contact with infectious adults is one of the key histories which can lead to an early diagnosis of TB. Obtaining respiratory samples in children can be challenging and other investigations can be invasive and requires admission. Rapid molecular test eg: GeneXpert TB has improved the cases of clinical-confirmed TB in children. However, despite this new molecular test, TB treatment in children is still often based on clinical diagnosis. With the support of JKNS, we are proud to inform that Sabah is the first state in Malaysia to obtain the Child-Friendly Dispersible Fixed Drug Combination. This can further consolidate the TB program in Sabah in accordance with the WHO STOP-TB movement.

Symposium Abstract 28**Approach in managing Resistant & Refractory Hypertension****Tee HC¹**¹*Department of Medicine, Hospital Queen Elizabeth, Sabah*

Resistant hypertension (R-HTN) implies a higher mortality and morbidity compared to non-R-HTN due to increased cardiovascular risk and associated adverse outcomes. R-HTN is defined as failing to lower blood pressure below 140/90 mmHg despite adequate lifestyle measures and optimal treatment with at least three medications, including a diuretic, and usually a blocker of the renin-angiotensin system and a calcium channel blocker, at maximally tolerated doses. The term “refractory hypertension” has been used to refer to an extreme phenotype of antihypertensive treatment failure, defined as failure to control BP despite use of at least 5 antihypertensive agents of different classes, including a long-acting thiazide-type diuretic and a mineralocorticoid receptor antagonist. The evaluation of R-HTN involves consideration of many patient characteristics, pseudo resistance (BP technique, white coat hypertension, and medication compliance), and screening for secondary causes of hypertension, especially primary aldosteronism or atherosclerotic renal artery stenosis, particularly in older patients or patients with CKD. Optimizing the three-drug regimen, including the diuretic treatment, adding a mineralocorticoid receptor antagonist as the fourth drug, a β -blocker as the fifth drug and an α 1-blocker or a peripheral vasodilator as a final option when failing to achieve target blood pressure values are current recommendations for R-HTN. Device-based therapies such as renal sympathetic denervation and carotid baroreceptor activation therapy show promising results but need further studies to confirm their efficacy and safety in clinical practice.

Symposium Abstract 29**Managing Menstrual Disturbance: An endocrine perspective****Lau BK¹**¹*Department of Medicine, KPJ Kuching Specialist Hospital, Sarawak*

Menstrual cycle is considered the 5th vital sign among women. There are a few case discussions to make it easier to understand how to approach management of menstrual disturbances in primary care which involves estrogen replacement or COCP and family planning such as donor oocyte, surrogacy, and adoption.

Symposium Abstract 30**Management of Obesity – What’s new in town?****Teoh SH^{1,2}**¹*Family Medicine Specialist; ²Obesity Medicine Physician, Advanced Medical & Dental Institute, Universiti Sains Malaysia*

Obesity is recognized as a disease by World Health

Organization. However, there is a difference in management approach between obesity and other chronic diseases such as diabetes and hypertension. The ‘eat less, move more’ is still the most common prescription despite the availability of various evidence-based treatment options for obesity. Using a case-based presentation, Dr Teoh will share his experience treating patients living with obesity in primary care. He will elaborate on the treatments provided for the patients discussed and introduces some new treatment options coming to Malaysia in the future.

Symposium Abstract 31**Paediatrics Ocular Disease - How Can Primary Care make a difference. “Computer vision syndrome” in COVID era.****Shuaibah AG¹**¹*Department of Ophthalmology, Universiti Malaysia Sabah*

Educational institutions in the country have been closed since April, 2020 for almost 2 years, to halt the spread of the novel coronavirus disease (COVID). The closure of schools has affected the education of more than 1.5 billion children and youths worldwide. The outbreak has changed the traditional teaching method of using black boards to digital device assisted online classes. Spending long hours in front of these devices can lead to many ocular problems in children. A major and common eye problem related to online learning includes progression of myopia, digital eye strain and acquired esotropia which are prevalent among children in Malaysia. The primary care providers should play an important role in raising public awareness thus early intervention and referral can be done to prevent further complications.

Symposium Abstract 32**Evolution of Infertility Therapy****M. Hatta Tarmizi^{1,2,3}**¹*Consultant Obstetrics & Gynaecology; ²Reproductive Medicine & Infertility Specialist; ³Co-clinical Director of SabahCare Fertility Centre, Sabah*

In the 1970s, improvement in laboratory techniques has enabled researchers to develop the IVF technique. Ultimately, this has led to the widely acclaimed first live birth of a “test tube baby,” Louise Brown, in England in 1978. Subsequently, Intracytoplasmic Sperm Injection (ICSI) was first performed in 1987 and it has become an important tool for male factor infertility. As a result, the first successful birth resulting from ICSI occurred in 1992.

Cryopreservation (freezing) of sperm, eggs, and embryos, plays a huge role in IVF. The first successful pregnancy using previously frozen eggs was reported in 1984 and the first live birth using a previously frozen embryo occurred in 1999. Advances in both freezing and thawing techniques includes vitrification techniques.

Preimplantation Genetic Testing (PGT) is used to ensure the genetic health of embryos before they are transferred. The first report of the genetic testing of embryos was published in

1990, but the technology has continued to improve drastically in the years since that early success.

Recently, the use of Embryoscope has become popular. Here, a picture of the embryo at a rapid rate is taken and put together into a time-lapse film. This gives embryologists proper monitoring of the embryo's divisions and development, while it remains in the incubator. Consecutively, with AI, good developing embryos can be determined and transferred, leading to much better outcomes.

In conclusion, the purpose of artificial reproductive technologies remains, which is to give couples to have the opportunity to have a healthy child.

Symposium Abstract 33

Professional Development in Primary Care

Iskandar Firzada O¹

¹*Klinik Kesihatan Jaya Gading, Pahang*

Professional development refers to continuing education and career training after a person has qualified professionally and entered the workforce in order to help that person to develop new skills, stay up-to-date on current trends, and advance their career. Staying up-to-date in Primary Care is of utmost importance due to wide array of subjects in medicine that has to be covered to care from womb to tomb. At the same time opportunity to enhance current skills and develop new skills is enormous. However, taking into account the needs of the population health in this country, MOH Malaysia (KKM) as the stakeholder and caretaker of the health of the nation has identified and prioritised what enhanced and new skills are needed in Primary Care.

The purpose of professional development is to provide the opportunity to learn and apply new knowledge and skills that can help us in our job and further our career. Professional development is all about building our skill set and knowledge base for our Primary Care fraternity.

Benefits of professional development include:

- a) Expands knowledge base.
- b) Boosts confidence and credibility.
- c) Increases earning potential and hireability.
- d) Provide networking opportunities.
- e) Keeps professionals current on industry trends.
- f) Can open the door to future career changes.

We will look into what are the enhanced and new skills that has been listed as priority by the KKM for professional development in Primary Care. However, the list is not exhaustive.

Symposium Abstract 34

Top Tips in Handling Underwater Emergencies

Muhamad Naím AR¹

¹*Hospital Lahad Datu, Sabah*

Sabah is considered a heaven to the outdoor activities' enthusiasts. The beautiful sceneries extend from the bottom of the sea to the top of Mountain. Every year, thousands of

people visit Sabah and particularly engage in underwater activities like sea walking, scuba diving, free diving, conducting research on marine biodiversity and spearfishing or hunting for fresh seafood. However, these activities are not without risk. There has been disabling or fatal underwater accidents recorded from scuba diving accident, trauma and marine stinger envenoming which could be prevented with appropriate early medical interventions. This lecture highlights the top tips in handling underwater emergencies.

Symposium Abstract 35

Medical coverage in international/adventure sports

George G. Mathew¹

¹*Klinik Kesihatan Tamparuli, Sabah*

Sport medical and paramedical practitioners provide important contributions to the world of sport. In high performance arena, a multi-disciplinary approach is required with each member of the medical team playing an integral role in supporting athletes. Early identification of dangers in adventure sports and injuries including field side assessment to foresee injuries prior to the race, early diagnosis and treatment of injuries are essential for good medical coverage. It is recommended to create a comprehensive referral network before an injury or problem arises. Human errors need to be reduced when covering field side, viewed as pre-hospital care. This takes away the more traditional reactive team dynamics to a more proactive medical team. Each team member need practise for a predicted scenario, given a designated role to perform during coverage. The medical team manager is responsible for co-ordinating the emergency response. This role can be assumed initially by the first responder (team doctor) who would perform the initial field side assessment and management, before handing over these responsibilities to the team leader (on arrival at venue). Communication within the team is vital, allowing team members to inform the team leader who provides situational awareness and co-ordinates the events. The team should have closed-loop communication to alert its members via the team leader when each task is delivered. Team communication and performance will be challenged by stressful, time-critical medical emergencies. In summary, medical coverage for international and adventure sports is challenging and stressful for the medical team. To provide the most efficient response and optimise the medical team's performance, it is recommended to move away from reactive team dynamics to a proactive team preparation model. In this way, the medical team covering the sports can deliver to ensure optimal care for athletes when a medical emergency arises.

Symposium Abstract 36

Pressure Related Illness in Diving Medicine: The Hidden Secret of Underwater World

Shamsul Bahary M¹

¹*Hospital Angkatan Tentera Wilayah, Kota Kinabalu Sabah*

Diving barotrauma is a spectrum of illnesses that is related to human body mismatch to the diving environment. Failure to equalise the inner body pressure during descent underwater with ambient pressure will result in injury to tympanums, paranasal sinus and visceral organs. Another diving barotrauma is decompression illness which are sub classified as decompression sickness and arterial gas embolism. This indirect barotrauma occurred due to inert gas from breathing apparatus which dissolves and forms a bubble within the tissue and arterial vessel after a rapid ambient pressure reduction during scuba diving. Diving barotrauma is preventable by undergoing a professional scuba diving training, proper dive plan and creating more community awareness regarding it. Malaysian territorial water is one of the tropical scuba paradises which attract divers from around the globe. In the event of Decompression Illness incident, the emergency first aid on site is a critical action point that influences the victim's survival, morbidity and mortality. Emergency first aid, prompt resuscitation and early decompression therapy will save lives and reduce long term disability. The primary care providers in Malaysia should be equipped with knowledge of decompression illness to ensure early diagnosis and prompt treatment. Health promotion and awareness to the community and scuba industry will help to prevent future unwanted diving incident. The Divers Fitness Certification in military practice does reduce the unwanted diving incident by early identification and modification of modifiable risk factors. In conclusion, diving barotrauma is preventable and the scuba diving industry in Malaysia should promote safe diving to all divers.

Symposium Abstract 37

Malaria - Getting to Zero: Where are we now?

Jenarun J¹

¹Disease Control Division, Ministry of Health Malaysia

Malaysia declared its intention to eliminate indigenous human malaria in 2011 with the goal of achieving zero local transmission by 2020. In 2018, Malaysia for the first time recorded zero indigenous human malaria and successfully maintained this status until now. The success Malaysia has achieved in combating human malaria is the product of several factors: an understanding of the location-specific epidemiology of malaria throughout the country; the adoption of a combination of strategies targeting the host, parasite and mosquito; the integration and coordination of infrastructural resources with good collaboration between key players; and the formulation of a clear policy, with defined targets and legislative support.

The main challenges now are related to sustaining these achievements which include: overcoming the danger of complacency; declining diagnostic and management skills among clinicians; preventing the re-introduction of malaria in malaria-prone areas; and the increasing burden of simian malaria. Way forward, we need to be vigilant on importation of malaria from endemic countries, maintaining active surveillance and early warning systems and maintenance of vector control in highly malariogenic areas.

Symposium Abstract 38

KK Telupid Rising to Challenges: An Experience at The Heart Of Borneo

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This talk is an overview the progress of KK Telupid from 2013 when the fire broke down on 15th February 2013 which destroying half of the clinic's building until the current issue including with managing the Covid pandemic. As the only health facility situated at the main road crossing from Ranau to Sandakan, with no nearby hospital within 100km radius, it was a very adventurous and remarkable experience to all staffs working at KK Telupid. As the 4th FMS working here after the clinic was without FMS nearly 5 years, with the covering area including whole district of Beluran and Paitan was also challenging. The journey and experience as FMS here were shared to highlight the challenges faced in Sabah's rural area, at the heart of Borneo. It is hope the shared life experiences can bring you closer to the community.

Symposium Abstract 39

Current Advanced in Modern Wound Dressing: Challenges in Rural Setting

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Wound care is a significant burden on the healthcare system. Caring for any wound in the community requires multidisciplinary work between healthcare professionals. The method of wound care has enhanced tremendously and evolved over the years. Modern wound dressing has proven to shorten the time of wound healing, be more cost-effective, reduce the dressing load and improve the quality of life of the patients and their caregivers.

The experience of various health care providers working with limited resources available in a rural setting influence wound care management. Challenges in wound care management faced by rural health care providers involve ineffective systems, staffing shortages, limited resources, poor communication between departments and practitioners and patient adherence to therapy. The providers are often the only physician in charge of a large area with geographical challenges. There is difficulty in access to the appropriate products with budget constraints. Inconsistencies in following evidence-based guidelines, and a difference in the knowledge and skills of clinicians also pose a challenge.

We must work hard to ensure people in rural areas receive the same level of care as their urban counterparts. To overcome these barriers as a team by creating and running community outreach programs. We can bring different skill sets and strengths to the team. Electronic healthcare systems can assist in addressing such problems.

ORAL ABSTRACTS

Oral Abstract OP1

Prevalence and attitudes towards dating violence among undergraduate students in a public university in Malaysia

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Introduction: Dating violence is a major public health concern causing short-term and long-term negative health implications. Dating violence commonly involves younger age group (eg: high school and university students). There is a lack of research data on dating violence and its associative factors in Malaysia.

Methods: A cross-sectional study was conducted in a public university in Malaysia. A total of 391 students were recruited via convenience sampling. Students responded to an online questionnaire in Google Form format sent via telecommunication platform - WhatsApp. The questionnaires were divided into 3 parts – background information, women abuse screening tool (WAST JB Brown 1996) and attitude towards dating violence scale questionnaire (Price 1999). Data was collected in Google Sheet format. Analysis was done using SPSS V.26.

Results: The prevalence of dating violence among university undergraduates participating in this study was 28.4%. Students were not receptive towards all forms of dating violence (psychological, physical, sexual) perpetrated by male or female. Attitude towards each form of dating violence were different for male and female and were influenced by their own unique set of associative factors (ethnicity, geographical distribution, study faculty, seniority of study, dating experience and experience of dating violence).

Conclusion: Generally, university undergraduate students had a non-receptive attitude towards all forms of dating violence. Despite that, the prevalence of dating violence was high with one in every three students experienced abuse before. Future interventions should focus on relevant modifiable risk factors.

Oral Abstract OP2

Adapting to Covid-19 pandemic: Improving diabetes education for gestational diabetic mothers in Klinik Kesihatan Nilai

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Introduction: Diabetes education for pregnant women is paramount to ensure good diabetic control which can eventually reduce the complication to the mothers and their babies. Diabetes education for pregnant women in KK Nilai was found to be not comprehensive and delayed especially during the Covid-19 pandemic.

Methods: A cross-sectional study was conducted between 15th January 2020 and 31st January 2022. Data was gathered using a standardized data collection form from the previous antenatal

records. Pre-intervention study was conducted between January and December 2020, and post-intervention study was conducted between January and December 2021.

Results: The pre-intervention study showed that only less than half (47.1%) of the gestational diabetic mothers received education within 4 weeks of diagnosis and none was noted to receive a comprehensive education. Multiple strategies to improve the problems have been made in order to achieve a desired target and the most significant is multidisciplinary education via virtual platform. In the post intervention study, there was marked improvement in the number of patients who received the diabetes education within 4 weeks of diagnosis (80.6%). Half (52.9%) of the diabetic pregnant women received a comprehensive diabetes education which involved multidisciplinary sessions by doctor, nurse, dietitian and physiotherapist by the middle of the study and rose to 72.4% by the end of the study.

Conclusion: Despite the challenges during Covid-19 pandemic, essential services like diabetes education can still be maintained in primary care through an alternative platform with proper coordination and team work.

Oral Abstract OP3

Development and validation of the home blood pressure monitoring (HBPM) knowledge questionnaire

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Introduction: Hypertension is a global public health issue, is often poorly controlled leading to debilitating health complications namely cardiovascular diseases. Most of the patients with high blood pressure are managed in primary care, where the use of home blood pressure monitoring (HBPM) is useful for diagnosing and managing hypertension. HBPM has been proven to improve blood pressure levels for at least twelve months when used with assistance of education interventions or support health care professionals' support. Therefore, it is important to advocate proper HBPM technique and a development on knowledge for proper HBPM is warranted.

Methods: This was part of a second-year medical student project "Effect of Video Intervention on Knowledge of Proper Home Blood Pressure Monitoring Among Second Year Medical Students, UPM". Validation of the questionnaire was done using content and face validation. Content validation was done with experts in the field and face validation was done with 10% calculated sample size.

Results: Ten subject matter experts (SME) were consulted consisting of five family medicine specialists, three internal medicine specialists and one public health specialist. Thirteen participants took part in the face validation. The final questionnaire on HBPM consisted of 22 items. All items scored a content validity (CVR) ratio of 0.6 and more,

indicating essential by the SMEs. The Cronbach Alpha of the items were 0.75, indicating good reliability.

Conclusion: The HBPM Knowledge Questionnaire is a valid and reliable tool to assess proper home blood pressure monitoring and has potential in assisting primary care hypertension management.

Oral Abstract OP4

Supporting victims of family violence: Barriers and facilitators for effective intervention at primary health care setting

Sajaratulnisah O¹, Syahrul N¹, Fadzilah Hanum MM¹, Nurainul Hana S², Norhasmah MZ³, Fatimang L⁴, Mastura A^{1,5}, Azah AA⁶, Choo WY¹, Noor Raihan K⁶

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Introduction: Despite accessibility and ability to provide comprehensive support for family violence victims, little is known of the barriers to effective family violence intervention at the primary care setting. Using part of the data from the Improving Opportunities for primary care and Advocacy for Family Violence (IMOCFAV), this paper aims to discuss these barriers.

Methods: Qualitative data were obtained from key persons who are involved in family violence intervention in Malaysia. Thirty service providers from various disciplines participated. The data set was analyzed using thematic analysis.

Results: Barriers at the service provider level include a high workload, the lack of training and poor attitude on family violence management. Absence of an optimal environment within the health facilities and accessibility to social services are barriers at the organizational level. Inability to recognize the primary health care services, and service compartmentalization are strong barriers to seamless support to victims. A lack of community awareness of primary health care services as a resource for help coupled with no clear policy and ineffective policy implementation become barriers at the societal level.

Conclusion: Effective family violence intervention in primary care setting is hampered at multiple levels. Efforts are required to improve the awareness of the primary health care potentials, to increase its capacity, processes, and infrastructure. A clearly written family violence policy and its implementation process that include primary health care are likely to allow synergistic multidisciplinary effort to combat family violence in Malaysia.

Oral Abstract OP5

Prevalence of depression and its associated factors among primary school children in Kuantan: A cross sectional study

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Introduction: Prevalence of depression in children is increasing in trend and is projected to be the second-highest disease burden in 2020 by (World Health Organisation) WHO. Depression has a long-lasting detrimental effect on children's development. Besides, depression has also been shown to be associated with self-harm and suicide. The objective of this study is to determine the prevalence of depression among primary school children, its association with sociodemographic characteristics and the children's self-harm intention.

Methods: A cross-sectional study was conducted in selected schools in Kuantan District and all standard 5 children were included. Those who are not able to write and read in the Malay language were excluded from the study. Participants with Malay- Children Depression Inventory (CDI) questionnaire score of more than 18 is considered depressed. Self-harm intention was determined by the children's response on question number 27 in Malay-CDI.

Results: The prevalence of depression among primary school children is 27%. There was no association of depression with gender, medical illness and sociodemographic characteristic. Among the depressed children, 66% has the intention of self-harm and they are 3 times more at risk of self-harm compared to non-depressed children.

Conclusion: Prevalence of depression among school children is high. Early detection and treatment have been shown to improve the outcome of depression in children. Hence, it is highly recommended to develop a well- structured program to address this issue.

Oral Abstract OP6

The views and practices on human milk sharing (HMS) among mothers

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Introduction: Human milk sharing (HMS) is being practised among mothers of various ethnicities and religions in Malaysia. It is a practice that comes with risks and concerns to mothers, including health consequences. Many factors influence mothers' decision to embark on this activity. Mainly, social media, support groups, and the surrounding people significantly impacted their decision on HMS practice.

Methods: This was a qualitative study involving 15 participants. They were recruited from a primary care health clinic in Selayang, Selangor, and social media using purposive and snowballing techniques. In-depth interviews were conducted using a semi-structured interview guide, which was developed based on the Theory of Planned Behaviour (TPB) Model. The interviews were audio-recorded, transcribed verbatim and checked for accuracy. The data were analysed using inductive thematic analysis.

Results: There were four main themes found in this study; 'Surrounding community influencing HMS practice', 'health related and other concerns on HMS', 'personal and religious believes' and 'current HMS practice'.

Conclusion: This study showed how HMS is being practised

in Malaysia with a few health-related concerns. These findings could be used in clinical practice to improve awareness of HMS in primary care and other areas, such as social media and confinement centres. Other health authorities are encouraged to monitor this activity, and proper guidelines on HMS in Malaysia should be implemented.

Oral Abstract OP7

Clinical audit on increasing the number of M-CHAT screening at 2 and 3 years old using Digital M-CHAT in Klinik Kesihatan Pengkalan Chepa

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Introduction: The Modified Checklist for Autism in Toddlers (M-CHAT) is a 23-item questionnaire designed to detect autism spectrum disorder. The specificity of M-CHAT was 98%, and a subset of children followed up at age 3.5 years had a sensitivity of 100%. In Malaysia, screening must begin at 18 months of age and be repeated at 2 and 3 years of age. M-CHAT screening defaulters were 47 percent at 2 years old and 52 percent at 3 years old during the Pandemic COVID-19 2020 in Klinik Kesihatan Pengkalan Chepa. The higher defaulter rate was due to parents concerns that their children would contract COVID-19 if they visited the clinic. The aim of this clinical audit was to reduce the defaulter rate by 20% by 2021.

Methods: Digitalize M-CHAT screening, a new work-flow was created that included the use of a google form and QR code. Parents will receive the link via WhatsApp. Data for the audit was collected between January and December 2020.

Results: M-CHAT screening for 2- and 3-year-olds improved by 92 percent and 88 percent, respectively, after 6 months of intervention, from January 2021 to July 2021. We were able to identify 11% of 2-year-old and 6% of 3-year-old who failed the M-CHAT screening and referred them to an early intervention programme.

Conclusion: The use of a digitalized M-CHAT screening is simple and can assist primary care in increasing MCHAT screening even during pandemics COVID-19.

Oral Abstract OP8

A qualitative exploration of smokers' view on the setting of a quit date

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Introduction: Setting a fixed quit date is part of the standard of care in most Quit Smoking Clinics (QSC). The aim of this study was to explore the meaning of quit date setting among smokers.

Methods: This qualitative study was conducted from March to June 2022. Attendees of the QSC in Hospital Canselor Tunku Muhriz aged 18 years old and above were recruited using

purposive sampling technique. Those with communication or cognitive difficulties were excluded. A single trained researcher conducted individual in-depth interviews through physical or online meetings. The audio recorded data was then transcribed into text and analyzed into themes by the two researchers independently.

Results: There were 6 smokers and 3 quitters with age range from 26 to 58 years old participated in this study. All of them were Malays and had attempted quitting at least once. Quit date was valued as a goal setting and seen as a motivating factor if it is flexible, and self-determined. However, a fixed quit date imposed by health care professionals (HCP) was seen as deterrent to their smoking cessation. They dislike it, and felt stressful and being imprisoned.

Conclusion: Quit date helped smokers to set a goal but need to be flexible and self-determined. In contrast, the fixed quit date by HCP can be a deterrent to the smokers and causing psychological distress in them. Setting a quit date is a shared decision-making process and has to be individualized according to smokers' circumstances.

Oral Abstract OP9

Mental health status among Malaysia youth – A nationwide cross sectional study

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Introduction: Mental health disorder is one of the global health burdens that seems to be increasing in number. Depression, anxiety, and stress among young adult has increased tremendously, especially during pandemic COVID 19. This nationwide study, aimed to determine the prevalence and factors associated with depression, anxiety, and stress among Malaysia youths.

Methods: A cross-sectional study was conducted from June 2021 to December 2021. Participants were students attending higher education institution in Malaysia. Institutions were sampled by stratified random whereby the participants were sampled by convenience sampling. A self-administered questionnaire that includes respondent's socio-demographic characteristics, academic background, substance abuse, childhood abuse, religiosity, parent's bonding instrument (PBI), peer pressure score (PPS) and Depression Anxiety Stress Scale (DASS-21) was used. Data was analyzed using SPSS 27 involving three levels of analysis (descriptive, chi square and multiple logistic regression). The level of significance was set at $p < 0.05$.

Results: 1172 respondents were recruited in this study. The prevalence of mental health status was highest for anxiety

(60.5%), followed by depression (45.6%) and stress (40%). Gender, adverse childhood experience, father care and peer pressure were found to be significant predictors for all three mental disorders. Field of study was also found to be the predictor for both depression and anxiety, whereby mother care and control were significantly predicting the development of depression.

Conclusion: Anxiety was found to be the most common mental health problem among Malaysia youths, followed by depression and anxiety. Male, having the history of childhood abuse, father care and peer pressure seem to be the important factors that contribute to mental health disorders. Screening and monitoring of mental health status among youths is strongly recommended and preventive measure should be initiated whenever possible.

Oral Abstract OP10

Not all anaemia are IDA- A retrospective study of anaemia among antenatal mothers in Kota Kinabalu, Sabah

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Introduction: Anaemia during pregnancy is a public health concern in Malaysia. According to World Health Organization (WHO), control of anaemia in pregnancy is essential to prevent low birth weight, perinatal and maternal mortality. Although the most common cause of anaemia worldwide is iron deficiency, there are few studies looking into the causes of anaemia among antenatal mothers in Malaysia. The aim of this study was to identify the causes of anaemia among antenatal mothers in Kota Kinabalu, Sabah so that the appropriate intervention can be carried out.

Methods: A retrospective study involving 3374 antenatal mother who were registered with the government clinics in Kota Kinabalu in 2021 by universal sampling.

Results: Almost half (43.3%) of the antenatal mothers were found to have anaemia which is quite alarming. 64.1% of them were detected during the second trimester. Fortunately, 75% of anemic mothers recovered by 36 weeks gestation. 90% of the antenatal mothers had serum ferritin checked and of these, 43.2% were identified as non-iron deficiency. These women would not benefit from the iron therapy & dietary counselling. This finding is surprising and will have a major impact on the current guidelines which does not mandate checking for serum ferritin but encourages empirical treatment with iron therapy including parenteral therapy.

Conclusion: Screening of anaemia among antenatal mothers should include checking for serum ferritin to ensure appropriate management based on the underlying cause. Guidelines that encourage empirical treatment with iron therapy should be revised.

Oral Abstract OP11

REBUNG community project for cancer literacy and navigation

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Introduction: Cancer is a leading cause of death and a major health burden to low-income groups in

Malaysia. Despite efforts to increase cancer awareness for early cancer detection and government health schemes for the poor, patients are often diagnosed at a later stage of the disease. Poor health-seeking behaviour and complex diagnostic pathways are some factors that hinder the early diagnosis of cancer in the B40 group. The pandemic has paved the way to online delivery of education but poses a challenge that needs to be overcome. This study describes the effectiveness and challenges of implementing a community-empowered project in improving cancer literacy and the navigation process for early cancer detection, diagnosis, and treatment in the B40 group through educational videos.

Methods: An education module consisting of 14 short videos of four main cancers in Malaysia developed by a group of experts in content and design were used to train leaders of the community. Pre-and post-questionnaires were used to assess the effectiveness and challenges of the training module in improving cancer literacy including diagnostic and financial aid pathways.

Results: There were improvements in participant's cancer literacy and confidence in navigating the community in cancer related pathway. Although the participants prefer physical training, the online version provides flexibility in time to them and the educators. Training and dissemination of videos via electronic messaging system to the community needed internet cost incentives.

Conclusion: Online training were effective in improving literacy in cancer navigation and knowledge in the B40 group.

Oral Abstract OP12

Prevalence of Fasting Risk Among Muslim Type 2 Diabetics And Its Associated Factors During Ramadan in Primary Care Clinics in Petaling District, Selangor

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Introduction: Globally, a high proportion of Muslim Type 2 diabetics (T2DM) choose to fast during Ramadan despite one third are in the high-risk fasting group. This is alarming due to the risk of multiple complications. Thus, we aim to determine the prevalence of fasting risk among Muslims T2DM in primary care and its associated factors.

Methods: A prospective observational study was conducted

in seven government primary health care clinics in Petaling district from 14th March 2022 to 15 July 2022, using primary and secondary data (questionnaire, patients' diary, clinical and laboratory records). Muslim adults aged > 18 years old, not pregnant, diagnosed with T2DM for at least 3 months and on medication were included. This study had 3 phases (pre-Ramadan, Ramadan and post-Ramadan). Systematic random sampling was used. The fasting risk score was calculated using 2021 IDF-DAR risk calculator. Preliminary findings from pre-Ramadan were analyzed.

Results: 260 participants were recruited. The prevalence of low, moderate and high fasting risk among T2DM in primary care in Petaling district was 33.8%, 32.3% and 33.8% respectively. Longer duration of diabetes (aOR 1.09, 95%CI: 1.03-1.16), on oral hypoglycaemia agents with insulin (aOR 3.66, 95%CI: 1.63-8.23), having hypoglycaemia episodes (aOR 5.92, 95%CI: 2.46-14.27) and higher HbA1c (aOR 1.64, 95%CI: 1.33-2.03) are significantly associated with having high fasting risk.

Conclusion: The prevalence of moderate and high fasting risk is high among T2DM in primary care. Primary care physicians are recommended to identify specific clinical characteristics of T2DM when determining the level of fasting risk.

Oral Abstract OP13

Maternal death due to associated medical conditions in Malaysia, a glance analysis

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Introduction: Malaysia has witnessed steep decline in maternal mortality ratio (MMR) since 1960s as maternal and child health services progressed. Most direct and indirect causes of maternal deaths showed remarkable improvement in cause-specific MMR, however a plateau trend is seen in deaths due to associated medical conditions where it is 4.1 in year 2000, 4.2 in 2007, 4.4 in 2014, 4.2 in 2018 and 3.8 per 100,000 livebirths in 2020.

Methods: A retrospective study using maternal death surveillance data was conducted to identify percentage of cardiac and non-cardiac diseases that contributing of maternal death in Malaysia for the period of 2016 to 2020. A total of 98 deaths of associated medical conditions were identified.

Results: It showed that cardiac diseases are predominantly cause maternal death rather than non-cardiac diseases. Data analysis revealed that 70% (year 2016), 52% (year 2017 and 2018), 87% (year 2019) and 83% (year 2020) of cardiac diseases was leading to maternal death compare to non-cardiac diseases. The non-cardiac diseases including chronic hypertension, renal failure, diabetic ketoacidosis, bronchial asthma and thyroid storm.

Conclusion: Therefore, a detail history taking and thorough examination during booking and antenatal check-up is very important to identify any medical problem of mothers. A pre-pregnancy care is a crucial approach for woman in reproductive age who have medical conditions to optimized their health before getting pregnant, therefore reducing morbidity and maternal deaths.

Oral abstract OP14

Identifying Familial Hypercholesterolaemia using Familial Hypercholesterolaemia Case Ascertainment Tool (FAMCAT), Simon Broome (SB) criteria and Dutch Lipid Clinic Criteria (DLCC) in primary care clinics in Klang Valley, Malaysia

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Introduction: Familial hypercholesterolaemia (FH) is often underdiagnosed and undertreated in primary care. Several clinical diagnostic criteria are available to detect FH. Therefore, this study aimed to clinically identify individuals with FH using FAMCAT, SB and DLCC in primary care.

Methods: This cross-sectional study was conducted in 11 primary care clinics in Klang Valley from September 2020 to May 2022. Patients with LDL-c levels of ≥ 4.0 mmol/L recorded in the EMR were invited to participate. A flyer was sent via social media messaging service. Those who agreed to participate were assessed at the primary care clinics. Data for socio-demographics, FAMCAT, SB and DLCC diagnostic variables were collected. Blood samples for genetic analysis were taken from those who fulfilled the genetic testing criteria.

Results: A total of 4049 patients with LDL-c of ≥ 4.0 mmol/L were invited to participate. Of these, 1003 (24.8%) patients were recruited and data for socio-demographics, FAMCAT, SB and DLCC diagnostic variables were collected. Of these, 339 (33.8%) fulfilled the FH clinical diagnostic criteria. Of these, 293 (86.4%) patients had blood sample taken for genetic testing.

Conclusion: A third of patients with LDL-c of ≥ 4.0 mmol/L fulfilled the FH clinical diagnostic criteria for genetic testing. Their blood samples are currently undergoing targeted-next-generation-sequencing to look for pathogenic variants in the FH-candidate-genes. Our study is the first in Asia to screen, detect and genetically diagnose FH in primary care. Primary care providers are well positioned to play a pivotal role in screening, diagnosis and treatment of FH. Detecting and treating FH early reduces premature atherosclerotic coronary artery disease risk by 80%.

Oral abstract OP 15**The impact of cognitive flexibility and coping flexibility on depression, anxiety and stress: new insight for mental health intervention in primary healthcare facilities**Wan LT¹¹Faculty of Medicine and Health Sciences, University Malaysia Sabah.

Introduction: This study aims to investigate the association between cognitive flexibility, coping flexibility and coping mechanism with the symptoms of depression, anxiety and stress among health sciences undergraduates in University Malaysia Sabah.

Methods: A total of 192 students participated and completed the depression, anxiety, stress scale and questionnaires that measured cognitive flexibility, coping flexibility and coping mechanism.

Results: The prevalence of depression, anxiety and stress was 53.3%, 68.7% and 57.8%, respectively. Multiple regression and Spearman's Rho correlation analysis revealed that avoidant coping mechanism, emotion focused coping strategies, flexibility subscale of Repertoire of coping were significantly correlated ($p < .05$) with the symptoms of depression, anxiety and stress.

Conclusion: The present findings revealed that intervention for depression, anxiety and stress in primary healthcare facilities should include cognitive flexibility and coping strategies counseling as part of the program. However, the lack of trained personnel in the facilities might harden the effort in helping patients with mental health issues.

Oral Abstract OP16**Severe COVID-19: A case report of complete resolution of COVID-19 pneumonia with inhaled budesonide/formoterol at primary care setting**Hazman J¹, Shazlin S¹, Zuraini A², Lee RA³¹Klinik Nur Batu Pabat; ²Klinik Kesihatan Batu Pabat;³Radiology Department, Hospital Sultanah Nora Ismail, Batu Pabat, Johor

Introduction: Coronavirus Disease (COVID-19) has infected more than half billion people worldwide with fifteen-percent of the cases are categorized under severe infection. They experienced the clinical symptoms of pneumonia with respiratory distress sign. We reported a case of complete resolution of COVID-19 pneumonia in a middle-age women with severe COVID-19 infection.

Case report: A 43-years old lady presented to general practitioner with cough, shortness of breath and reduce effort tolerance of only 10 meters walking distance since diagnosed with COVID-19 two weeks prior to presentation. Initial chest radiography showed more than 50% lung involvement with organizing pneumonia features seen in Computed Tomography of Thorax. She was started with a course of inhaled Budesonide/Formoterol (pMDI Symbicort 160/4.5 mcg with aero-chamber) every 3 hourly, N- Acetylcysteine (Fluimucil) 600

mg BD, Montelukast (Singulair) 10mg OD and probiotics (ProbiDefendum) 1billion CFU OD for 4 weeks duration. An interval chest radiography and CT Thorax at 4 weeks showed a significant improvement of air opacities and consolidation that only occupied less than 25% of the lungs. A dose adjustment for Symbicort to TDS with continuation of remaining regime for another 4 weeks done. A complete resolution of pneumonia on chest radiography and normal spirometry recorded at eight weeks post treatment.

Conclusion: A complete resolution of pneumonia in severe COVID-19 infection achieved after 8 weeks treatment with inhaled Budesonide/Formoterol, N-Acetylcysteine, Montelukast and probiotics.

POSTER ABSTRACTS**Poster Abstract FPP1****Protocol Study****Poster Abstract FPP2****Accuracy of electrocardiogram interpretation among primary care doctors**Kee EK¹, Lim HM¹, Haireen AH¹, Julia S¹, Imran ZA²¹Department of Primary Care Medicine, Faculty of Medicine, University Malaya Medical Centre; ²Department of Cardiology, Faculty of Medicine, University Malaya Medical Centre, Malaysia

Introduction: Electrocardiography (ECG) is an important and common investigation tool in primary care. ECG interpretation is an important skill that one should master as we are often the first point of care.

Objectives: This study aimed to assess the accuracy of ECG interpretation among primary care doctors and its associated sociodemographic factors.

Methods: This was a cross-sectional study using self-administered questionnaires by primary care doctors in all government clinics in Wilayah Persekutuan Kuala Lumpur (WPKL). Convenient sampling was used. Participants were given 11 ECGs and required to answer with a diagnosis. Each ECG condition given a score (1 = correct, 0.5 = partially correct, 0 = incorrect) and converted to percentage. Each participant's score was calculated based on the summation of weighted scores of each ECG.

Results: Most common misinterpreted ECGs were Long QT syndrome (74.8%), Wellen syndrome (64.8%), WPW (68%), and LBBB (64.1%). Complete heart block was misinterpreted by 50%, SVT misinterpreted by 54.9% and Mobitz 1 by 50% of the participants. Approximately 23.3% misinterpreted VT and 27.7% AF. Mean score across all levels of training was 54.6%. Medical officer (MO) with no postgraduate training, MO in postgraduate GCFM and doctors who were slightly uncomfortable in interpretation of ECG obtained significantly lower scores. ($p < 0.001$ and $p = 0.039$, $p = 0.012$ respectively).

Conclusion: Doctors across all training in primary care were lacking in ECG interpretation skills. Education and confidence seem to improve ECG interpretation. Further strategies to

improve the ECG interpretation among primary care doctors may need to be explored.

Poster Abstract FPP3

Exploring drugs and alcohol rehabilitation service in London

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Introduction: Drugs and alcohol rehabilitation services in the United Kingdom are provided by the National Health Service (NHS). In Malaysia, Agensi Anti Dadah Kebangsaan (AADK) is the main agency responsible for drugs rehabilitation. Family Medicine Specialists (FMS) visited several drugs and alcohol rehabilitation centres and attended the Royal College of General Practitioners (RCGP) conference in London.

Objectives: The aims were to explore drugs and alcohol services and establish networking.

Methods: Centres with outpatient and residential rehabilitation services around London were identified and contacted. A guided visit and structured discussion were held at the centres. Four posters were presented at the RCGP conference.

Results: Five centres offer outpatient services (Marina House, St John's Therapy Center, Margaret Center, Club Drug Clinic, Dean's Street), one training centre (RCGP office) and one residential rehabilitation (Mount Carmen Rehabilitation Center). All outpatient centres consist of a multidisciplinary team headed by an Addiction Psychiatrist. The centres offer one-stop services for pharmacological treatment, harm reduction and psychosocial intervention. The residential rehabilitation centre visited offers outpatient and inpatient voluntary alcohol and drug rehabilitation services.

Conclusion: The group developed networking between FMS with interest in addiction and Addiction Treatment & Rehabilitation team in UK. This visit's salient learning point is; a structured system with good government-private partnership and full utilization of health care services at all levels, with a dedicated multidisciplinary team provides an ideal rehabilitation service for drugs and alcohol addiction.

Poster abstract FPP4

Adverse drug reactions (ADR) among tuberculosis patients treated with first-line anti-tuberculosis medications in Samarahan Division, Sarawak – a cross sectional study

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Introduction: Adverse drug reaction (ADR) is a complication of tuberculosis medications which could potentially cause

unsuccessful treatment outcome. Incidence of ADR varies widely across studies. No Samarahan ADR study had been done before.

Objectives: This study aims to find the incidence of ADR among tuberculosis patients treated with first-line anti-tuberculosis medications and the associated factors.

Methods: Cross-sectional study via retrospective review of medical records of all adult tuberculosis patients registered under Samarahan Division Health Office in year 2017 – 2018 using universal sampling method (n=196). Patients' demographic and clinical characteristics were analyzed using descriptive analysis. Cross tabulations were used to analyze for factors associated with definite ADR. The likelihood of ADR was assessed based on Naranjo scale.

Results: Half of the patients (50%) had either symptoms or abnormal blood investigation results related to ADR. Only 5.6% had definite ADR as per Naranjo scale. The most common abnormalities were abnormal liver function test (68.4%), itchiness (20.4%) and nausea (17.3%). Factors associated with definite ADR were age 60 and above (p=0.020) and presence of comorbidity (p=0.049). Among patients experiencing definite ADR, 90.9% of them required treatment intervention (p<0.001) and 72.7% of them completed standard treatment (p=0.195).

Conclusion: Despite 50% of tuberculosis patients in Samarahan Division had ADR-related symptoms or abnormal blood results, the incidence of having definite ADR was only 5.6%. Therefore, all patients treated with first-line tuberculosis medications especially those aged 60 and above or with comorbidity should prompt healthcare provider to assess the likelihood of ADR using Naranjo scale if they develop symptoms or abnormal blood investigation results suggestive of ADR. Definite ADR affected treatment regime but not treatment outcome.

Poster Abstract FPP5

Non-obstructive hypertrophic cardiomyopathy in pregnancy: a clue not to be missed

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Introduction: Hypertrophic cardiomyopathy (HCM) is a primary myocardial disorder caused by mutations in several different genes coding for contractile proteins. It can occur sporadically or in an autosomal dominant pattern of inheritance. It may be first diagnosed during pregnancy and can remain well tolerated. Nevertheless, early diagnosis and referral is crucial to ensure comprehensive management and risk evaluation is being made in order to prevent complications such as arrhythmia, heart failure and sudden cardiac death.

Case report: A 35-year-old pregnant lady with underlying beta thalassemia carrier presented with palpitation in her

second trimester and subsequently benefited from early echocardiogram assessment, which revealed features of non-obstructive hypertrophic cardiomyopathy. She was then successfully undergone a well-planned elective caesarean section without any complications to her and her newborn.

Conclusion: This case exhibits how early recognition and referral of the case, closed monitoring and proper management during pregnancy according to the latest recommendations, resulted in a successful and uneventful delivery.

Poster Abstract FPP6

Association of depression and anxiety with asthma control during the COVID-19 pandemic among adult asthmatics

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Introduction: There may be an increase in the prevalence of depression and anxiety in patients with chronic diseases such as asthma during COVID-19 Pandemic. This may lead to problems as depression or anxiety were shown to interfere with asthma control. This study was conducted to determine the prevalence of depression and anxiety among adult asthmatics in primary care and its association with asthma control during COVID -19 pandemic.

Methods: A cross-sectional study was conducted in an urban primary care setting from April to May 2021. Adult asthmatics who presented to KK Bandar Botanik during the study period were recruited. Patients who gave consent were given self-administered questionnaires which consists of participants' sociodemographic and clinical characteristics, PHQ-9, GAD-7, and ACT. IBM SPSS Statistics Version 25 was used to analyze the data.

Results: A total of 242 adult asthmatics participated in this study. Prevalence of depression was 9.5% (n=23) and anxiety was 5.4% (n=13). More than half of the participants reported good asthma control (61.6%, n=149). Presence of depression or anxiety (OR 2.548, 95% CI 1.005-6.464, p=0.049) and history of ICU admission due to asthma (OR 4.177, 95% CI 1.007-17.324, p=0.049) were factors associated with uncontrolled asthma.

Conclusion: The prevalence of depression and anxiety was lower among adult asthmatics in Klang, Malaysia, in comparison to the pre-pandemic period. This finding suggests a positive impact of wearing mask, hand hygiene, and physical distancing on their asthma control but reemphasizes the need to assess the mental health of all patients with asthma during their follow-up.

Poster Abstract FPP7

Attitude towards contraception use among husbands of high-risk pregnant mother: its associations, intention and self-reported practice of contraception.

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Introduction: Women with high-risk pregnancies should have a planned pregnancy with involvement of husband and a multidisciplinary team throughout the pregnancy. The burden of unplanned high-risk pregnancies can be reduced with effective practices of contraception. The objective of this study was to determine the attitude among husband of high-risk pregnant mother, their intention and self-reported practice of contraception.

Methods: A cross-sectional study conducted among husbands of high-risk pregnant mother attending antenatal clinic and wards in one of the general hospital in Malaysia. Husbands to high-risk pregnant women of at least at 32 weeks of gestation were approach. Those who met the inclusion criteria and consented to participate in this study was given a set of a self-administered questionnaires, of which for the purpose of this paper, we will focus on the socio-demographic, attitude towards contraception questionnaire, their intention and self-reported practice of contraception. The respondents contacted by researcher via telephone interviews at least 6 weeks of their wives' post-delivery to obtain their current practice of contraception.

Results: The response rate in this study was 98.6% (146/148). About 40.4% of husbands had satisfactory attitude towards contraception. There was association between attitude towards contraception and total monthly income (p=0.038). Prevalence of intention to practice contraception was 45.9%, however self-reported practice of contraception at six weeks post-delivery was 71.9%. There is marginal trend towards significance for the association between satisfactory attitude and intention to practice contraception (p=0.056). However, there is no association seen with self-reported practice of contraception at six weeks post-delivery (p=0.335).

Conclusion: The satisfactory attitude towards contraception among husband of high-risk pregnant mother is low. Hence, there is the need for early involvement of husbands in educating high-risk women on the pregnancy risk to improve the unmet use of contraception.

Poster Abstract FPP8

Prevalence of chronic kidney disease among patient with newly diagnosed type 2 diabetes mellitus and its associated factors at a district health clinic in Manjung, Perak

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Introduction: Diabetes mellitus (DM) is a leading cause of chronic kidney failure (CKD). This study aims to determine the prevalence of chronic kidney disease at diagnosis of type 2 diabetes mellitus patients and its associated factors.

Methods: A retrospective cross-sectional study was conducted from July until August 2020 using secondary data of diabetes mellitus registry for the year of 2018 and 2019 in Klinik Kesihatan Sitiawan. Data was analysed using SPSS version 2.

Results: Out of total 131 samples that were collected, diabetes mellitus type 2 was diagnosed in 36.6% and 63.4% among patients in 2018 and 2019 respectively. Mean age of respondents was 52-year-old. Majority of respondents (76.3%) had poor glycaemic control. 6.9% of newly diagnosed diabetes mellitus patient was having CKD. Among CKD patients, majority was in CKD stage 3 (6.1%). Two independent risk factors that was identified in this study were age and race.

Conclusion: Chronic kidney disease is a common complications of diabetes mellitus. Good glycaemic control is a key component of diabetes mellitus patient management.

Poster Abstract FPP9

Memory loss with behavioural change - a rare presentation of a Craniopharyngioma: A case report

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Introduction: Craniopharyngiomas are rare epithelial tumours but the most common intracranial tumours in children. Intracranial pressure symptoms, visual defect and endocrinopathies are common presentations. However, memory problem is an uncommon manifestation of craniopharyngiomas. We present a case of teenage girl who presented with short-term memory loss and behavioural change, which turned out to be a craniopharyngioma.

Case report: A 17-year-old girl presents with forgetfulness and behavioural change for two weeks without prior history of head trauma or surgery. She could not remember her recent activities which affected her daily activities and academic performance. She had no other symptoms such as headaches, vomiting, vision loss and focal neurological deficits. She was noted to become more talkative than usual with no other mood symptoms. General and neurological examinations were normal. Her mini-mental state examination score was 24/30 particularly, faulty in the orientation and registration section. The laboratory test showed raised serum alpha-fetoprotein and prolactin levels. Computed tomography and magnetic resonance imaging of the brain showed heterogenous enhancing sellar and suprasellar mass with hydrocephalus suggestive of adamantinous craniopharyngioma. Surgical excision was discussed and planned. However, her parents refused and opted for traditional medication. The patient's condition deteriorated, and she succumbed to death after three months of illness.

Conclusion: This case highlights the importance of early

recognition of the causes of memory/cognitive impairment in adolescents. A timely referral can be made, and early intervention can save a patient's life. Ethical dilemma in managing such cases on decision making in adolescents is a delicate issue but needs to be tackled wisely.

Poster Abstract FPP10

Increasing the achievement of 'endocervical cell seen' in the pap smear screening in Maternal Child Health Clinic (MCHC) Betong, Sarawak

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Introduction: PAP smear is a simple, safe, non-invasive and cost-effective method for detection of changes in the cervix and vagina. Endocervical cell are located at the squamo-columnar junction of the cervical canal. Cervical cancer is the third commonest cancer among Malaysian woman. Pap smear with endocervical cells is more likely to detect atypia. MCHC Betong's pap smear achievement for endocervical seen was 66.7% (2015), 65.3% (2016) and 59.45% (January- June 2017) which is below the national target (80%). This study aims to increase endocervical cell seen result.

Methods: This is a cross sectional study. Staff knowledge and attitude of pap smear practice were assessed with questionnaire and audit checklist respectively. Training of correct technique handling using a newly invented cervix model and poster display. Post-test practice questionnaire were conducted after three months.

Results: The knowledge and attitude score of staff on pap smear handling pre intervention was 35.7% and improved to 100%. The practice score on pap smear handling pre-test was 32% and improved to 100% post intervention. The endocervical cell seen improved from 59.4% in January-June to 78.6% from July to December after intervention.

Conclusion: This project has improved technique of pap smear handling and had achieved national target. Hence, this could increase early detection of cervical carcinoma.

Poster Abstract FPP11

Managing panic disorder in primary care setting: A case report

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Introduction: Lack of access to healthcare causes poor coverage of treatment for mental illness. We present to you, a case of panic disorder fully managed in a primary care setting.

Case report: Miss FA presented with mood symptoms and recurrent episodes of somatic symptoms triggered by driving. Further history revealed that she had several perpetuating factors; 1) changes in her postgraduate study during the COVID-19 pandemic, 2) moving back to a stressful home

environment, and 3) living with an autistic elder brother. Additionally, she had a precipitating incident where she witnessed a traumatic death from a motor vehicle accident. After ruling out organic causes, she was referred to the clinic psychologist for CBT. Four months after the diagnosis, Fluvoxamine was initiated and tapered up to effective dose. We involved her family where she was able to move out while maintaining a good relationship with them. Nine months after her first contact with us, she was able to drive again. She was able to secure a stable job despite deciding to let go of her study.

Conclusion: This case highlights the role of primary care physicians in concordance to the principles of family medicine. As the first contact, diagnosing mental illness while ruling out organic pathology are instrumental in managing the patient. Limited access to treatment options needs careful planning in coordinating the care. Involving the family members provides a more comprehensive and holistic care. Lastly, having logistic access to the clinic helps in continuity of care, which aids monitoring the response to therapy.

Poster Abstract FPP12

Caregiving experiences among carers of moderate to severe-dependent stroke survivors

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Introduction: Most patients survived the initial phase of stroke, but many were left with being physically or mentally disabled. They are mainly dependent on other people for day-to-day activities. The support mainly comes in the form of informal carers (unpaid) who are mostly family members. Carers may be 'ill-prepared' as they are suddenly thrust into the new role of caregiving after an unexpected stroke event. Ultimately, stroke does not only affect the survivors but also those who cares for them. This study aimed to explore the caregiving experiences among carers of stroke survivors including the challenges that they faced, the impact on to the carers and their wellbeing, the coping mechanisms they adopted and any unmet needs.

Methods: This was a qualitative study. Ten informal carers were interviewed around the Klang Valley area. In-depth interviews using topic guide based on the Scholssberg's Transition Theory and literature reviews were conducted. All interviews were audio recorded, transcribed verbatim and analysed using inductive thematic analysis.

Results: There were five main themes emerged from this study; 'focus shifted towards the stroke survivors', 'caregiving repercussions', 'lack of resources', 'surviving hardships' and 'beauty emerging from hardships'.

Conclusion: This study showed the complexity of caregiving. Healthcare provider should pay special attention towards the carers' wellbeing and their unmet needs as they are the integral part of the post stroke care in the community.

Poster Abstract FPP13

Unusual presentation of secondary syphilis in primary care – A case report

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Introduction: Syphilis is difficult to diagnose on presentation due to its varied clinical manifestation. This case report highlights condyloma lata (CL) as a clinical presentation for patients with secondary syphilis.

Case report: Mr SS, a 37-year-old man and his partner presented to clinic. He complained of a week of scrotal pain that was aggravated during walking. It started with multiple hypopigmented papules started to appear around the scrotum and penis. Then, painful ulcer formed at the base of stratum which cause his visit. Miss NE, a 19-year-old lady had similar painful lesion at vulva. Moreover, she had a painful, single well-demarcated erythematous plaque of size 2cm on her hard palate. Both of them denied any fever or genital discharge. Further history revealed that they had multiple sexual partners and recently had unprotected sex together. Other systemic examinations were unremarkable. The suspicion on CL was made as investigation later showed positive for TPPA and RPR of 1:64. HIV PCR tests and other investigation were normal. The lesions at genitalia and oral cavity resolved after treatment of IM Benzathine Penicillin further affirm the diagnosis of CL.

Conclusion: CL is reported to occur in about 6-23% of patients with secondary syphilis. Mucosal CL is extremely rare. Hence, a high level of suspicion is the key to diagnosing this case.

Poster Abstract FPP14

Advantages and disadvantages of an online quit smoking counselling during the Covid-19 movement control order

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Introduction: Cigarette smoking is a major public health problem and causes cardiovascular, respiratory and cancer diseases and other morbidity and mortality. Smoking cessation may reduce the risk of illness in smokers who quit, and at 10-15 years after quitting smoking, the risk of illness to smokers reduces to almost as non-smokers. The conventional quit smoking programs have been usually organized faced-to faced. However, the Covid-19 pandemic and its nationwide Movement Control Order (MCO) required a more innovative way to provide quit smoking counselling via online counselling.

Methods: An Online Quit Smoking counselling was done during the Covid-19 pandemic from February 2021 to November 2021, involving 35 smokers. A total of 24 men and 11 women smokers were invited to join the online quit smoking counselling program. All participants joined a total of 7 online sessions, which lasted 45-60 min per session. All participants filled in a socio-demographic questionnaire, Smoking behaviour questionnaire and Fagerstrom Test of Nicotine Dependence (FTND) questionnaire.

Results: Majority (70%) of the participants joined the quit smoking program as they were at home and had limitation to get their regular supply of cigarettes during the MCO. The mean age of smokers were 34 ± 9 years old, smoked mean 16 ± 9 cig/day, duration of smoking 13 ± 12 years, with mean FTND score of 7.3 ± 2.4 . Participants reported the advantages of the online quit smoking program include 1) ease of joining, 2) flexibility of time, 3) less intimidating, 4) made them more confident to voice out their worries, 5) provided a shield of 'privacy', 6) made them feel 'less judged', 7) less stressed. However, the participants reported some advantages which included; 1) less rapport with the counsellor, 2) less 'reaching out', 3) embarrassed or difficulty to share some 'private stories' or 'worries', 4) lack of concentration during the online sessions due to other distractions and, 5) they are not sure of 'retention' due to the lack of physical engagement. At the end of 9 months of online quit smoking counselling, a total of 9/35 (26%) stopped smoking, 17/35 (48%) reduced the number of cigarettes smoked, and others continued smoking as usual.

Conclusion: Online quit smoking programs have a role in helping smokers quit smoking. There is potential for online quit smoking programs to cater to situations which make face to face counselling not conducive or not feasible.

Poster Abstract FPP15

A cat lover with a red eye: Parinaud's oculoglandular syndrome

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Introduction: Parinaud's oculoglandular syndrome (POS), is an aberrant form of cat scratch disease. It occurs via infection from an infected cat's or dog's bite or scratch. Patient commonly presents with low grade fever and unilateral granulomatous conjunctivitis. Despite being self limiting, antibiotics has a role in treatment.

Case report: A 38-year-old female presented with a week's history of painless right eye redness associated with tearing, however her visual acuity was not impaired. There was also right facial swelling and low grade fever. Patient is a housewife and rears cats at home, however there was no history of getting scratched by cats. Patient was treated by a general practitioner with oral penicillin and topical chloramphenicol eye drops, to no avail. She presented to us with non resolution of symptoms. On examination, there was granulomatous conjunctivitis, and her right eyelid was diffusely swollen. Otherwise, her pupillary reflexes and extraocular muscles movements were normal. Otolgic assessment revealed preauricular lymphadenopathy, whilst dental assessment was unremarkable. A diagnosis of POS was made. She was treated with oral macrolides and topical fluoroquinolone eye drops. Upon reassessment a week later, patient had complete resolution of symptoms.

Conclusion: A high index of suspicion is warranted to diagnose POS. Appropriate antibiotics are needed to expedite the treatment and recovery process. That being said, the primary approach would be to avoid contact with infected cats. Pet

owners should maintain cleanliness and be vigilant about pest management.

Poster Abstract FPP16

Waiting time in government health clinics in Melaka

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Introduction: Primary care clinics are the point of first contact for health care services worldwide. In Malaysia, primary care service is provided by both government and private clinics. The government health services are heavily subsidized, resulting in huge workload in government health care centres. One of the quality improvement initiatives is to monitor the waiting time a patient needs to see a health care provider/doctor. The set promise in the clients' charter is 80% of patients/clients are seen by the first provider within 30 minutes. There is a need to explore on this issue especially during the Covid-19 pandemic. This study explored patients' waiting time from registration to seeing the first healthcare provider, in government primary care clinics within Melaka state.

Methods: This is a cross-sectional study involving all 32 government primary care clinics in Melaka state. 10% of daily clinic attendance were sampled. 4721 sampled data were taken from 17 th -21 st January 2022, using systematic random sampling technique, after data checking and cleaning. Descriptive analysis was used to describe the parameters.

Results: The average waiting time a patient sees the first primary care provider was 10 minutes and 28 minutes to seek consultation of a doctor. However, the waiting time for antenatal mothers to see a primary care provider averaged 43 minutes.

Conclusion: This study found waiting time in the government primary care clinics in the Melaka state was as promised in Ministry of Health's client charter. It can be used for quality improvement/audit purposes in the future.

Poster Abstract FPP17

Is It Just Asthma ? : Depression and Anxiety : A Challenge To Asthma Management: A case report

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Introduction: To describe the correlation of depression

and anxiety with degree of asthma control and hence the importance for mental health screening and intervention.

Case report: A 31 years old lady presented with persistently uncontrolled asthma despite possible risk factors identified and rectified. Mental health screening was eventually done using the DASS-21 scale which evidently highlighted hidden depressive symptoms with anxiety features. Subsequently, from a proper psychiatric evaluation the diagnosis of MDD (Major Depressive Disorder) with anxiety features was confirmed. This is a case of a psychiatric illness (MDD) masked or complicated by poorly controlled asthma or vice versa. A combination of psychotherapy and pharmacological intervention for the mental disorder was commenced. And her asthma was concurrently managed in accordance with GINA guidelines. Consequently, with improvement of depressive symptoms, good asthma control was finally achieved. This can be objectively seen through her ACT scores and PEFr values throughout the follow up visits in our clinic.

Conclusion: Depression and anxiety pose a real challenge to asthma management. There are numerous studies available correlating mental disorders with poorly controlled asthma. Thus, mental health screening is crucial in asthmatic patients with poor control of the disease. Holistic management of these patients at primary care reduces overall disease morbidity and mortality.

Poster Abstract FPP18

Preliminary study: Clinical intervention to improve quality of care among undernutrition children in Kuala Selangor District, Malaysia

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Introduction: Undernutrition remains a major public health issue among children in developing countries. Food security, mother and child care and characteristics of health services were factors explaining the prevalence of undernutrition among children. This study aim to describe the pattern of undernourished children, to determine the clinical practice factors and impact of intervention taken by primary health care to improve quality of care among undernourished children in Kuala Selangor.

Methods: This is a pre and post cross-sectional study done in two Primary Health Care Clinic in Kuala Selangor District, from Jan 2020 to June 2021. All cases of undernourished children during the study period were selected. Standard Audit Checklist on Management of Undernourished Children was used as research tool. Structured interventions include training, introduction of KZM sheet, applying virtual consultation and introducing QR code for cooking demonstration. Post intervention assessment includes data on body weight was collected. Data was analysed using descriptive statistics.

Results: A total of 34 cases were selected for pre intervention. Male; n=10/34 (29.4%); female; n=24/34 (27.6%) with mean age of 36 months (± 29.9 SD). Clinical practice factors include low health education by medical officers; n=6/34 (17.6%), only

few cases received cooking demonstrations; n=3/34 (8.8%), and late referral; n=10/34 (29.4%). Post intervention showed betterment in overall patient management; ranging from 75.0% to 80.2%. Trend of weight among children exhibit marked improvement post three months of intervention.

Conclusion: This study proved that childhood undernutrition is a correctable condition. A structural and coordinated clinical interventions is necessary to improve the nutritional status of children in primary health care setting.

Poster Abstract FPP19

Validation of the pelvic floor muscle training video for pregnant women with urinary incontinence in primary care

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Introduction: Urinary incontinence (UI) among pregnant women in primary care settings was associated with poor quality of life. Pelvic floor muscle training (PFMT) is the first-line management for UI, and validated educational videos may be able to deliver this exercise effectively. This paper aims to describe the development and validation process of the PFMT video for managing urinary incontinence (UI) in primary care.

Methods: The video was developed based on the capability, opportunity, and motivation (COM-B) framework with the expert's input in the checklist development. Pregnant women with UI were invited to validate the video based on its understandability and actionability using the Patient Education Materials Assessment Tool (PEMAT). This validation study was a subgroup analysis from a pilot randomised control trial (RCT) of a newly developed pelvic floor muscle training (PFMT) app among pregnant in Malaysia: the Kegel Exercise Pregnancy Training app (KEPT-app) trial.

Results: Twenty-six pregnant women with urinary incontinence from an urban healthcare clinic were recruited with a response rate of 54.2% (n=26/48) within three months. Sixteen of them received the intervention, and ten of them were in the waitlist control group. After one-month post-intervention, thirteen pregnant women with a mean (SD) age was 30.8 (3.4) years old evaluated the video via the KEPT app. They provided their feedback using PEMAT, with an understandability score of 92.3%(1.8), and actionability was 96.2%(0.4).

Conclusion: Using the COM-B framework assisted in this newly developed video that may help pregnant women perform PFMT at home effectively.

Poster Abstract FPP20

Prevalence of inappropriate referrals from government health clinics in Melaka to emergency department Hospital Melaka

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Introduction: Primary care is an important area in health care service. One of multiple tasks in primary care is referral to hospital. It is crucial to ensure all referrals are appropriate. Inappropriate referrals may result in unnecessary overcrowding at Emergency Department (ED), delay in getting proper treatment, hassle to patient & carer and unhealthy image to both primary & secondary care providers. The aim of this study was to determine the prevalence of inappropriate referrals from government health care clinics to the ED Hospital Melaka.

Methods: This was a cross-sectional study conducted at the ED Hospital Melaka from 14th – 25th March 2022 involving all referrals from 32 government health clinics in Melaka. The study and data collection were conducted confidentially to minimize bias. All referrals were then reviewed by both specialists from ED and health clinics to decide on appropriateness and learning points.

Results: There were a total of 165 referrals made from health clinics to ED Hospital Melaka: 51 cases were admitted and 114 cases were sent back. All 114 cards were traced: 3 were referrals from outside Melaka hence excluded and 6 cards could not be found. Out of 165 referrals, 35 cases (21.6%) were found to be referred to ED inappropriately: 60% out of 35 cases needed referrals but to specific specialist clinic. There were 14 cases (8.6%) that did not require referral at all.

Conclusion: This study found a fifth of referrals from health clinics in Melaka to ED Hospital Melaka was inappropriate. Hence, further intervention needs to be conducted to improve quality of service.

Poster Abstract FPP21

Diabetes outcomes among women of reproductive age attending primary care clinic in Seberang Jaya

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Introduction: This study aimed to determine the prevalence of diabetes mellitus, glycaemic control, & diabetes related complications among women of reproductive age attending KK Seberang Jaya.

Methods: This is a retrospective study which enrolled women of reproductive age with diabetes mellitus (both type I and II) attending outpatient clinic. Diabetic women of Malaysian nationality aged between 15 to 49 years old minimum of 1 year actively registered in the National Diabetic Registry (NDR) were recruited and their diabetes records were reviewed. The target for glycaemic control (HbA1c \leq 6.5%).

Results: There were 1841 diabetic women registered in our NDR, with 9.3% (171/1841) were in reproductive age. Majority were Malays (70.8%), followed by Indians (22.8%). The mean age was 42.33 years. The average BMI was 31.6 (median 30.1). 52.9% has BMI \geq 30. Approximately half of them on sulphonylureas (42.1%), 27.5% on premix insulin and 12.3% on short acting insulin. Majority has hypertension (57.9%) and 21.8% used \geq 3 antihypertensives. There were only 14.6% achieved targeted BP \leq 135/75mmHg. Majority have high LDL (63.6%) and low HDL (59.2%). We found that the average HbA1C was 8.7%. Only 12.3 % achieved HbA1c target of \leq 6.5%. Nearly one third (22.8%) has hbA1c \geq 10%. 3.5% has DKD, amputation (0.6%), nephropathy (4.1%), CVA (1.2%), IHD (0.6%) and retinopathy (8.2%). Among 101 (59.1%) of diabetic women received pre-pregnancy care (PPC), only 14.6% achieved targeted HbA1c \leq 6.5%.

Conclusion: There were 9.3% diabetes women of reproductive age. Majority of them were obese, with poor glycaemic and BP control with multiple diabetes complications.

Poster Abstract FPP22

Factors associated with acceptance of effective contraception among post-natal mothers In Muar health clinics

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Introduction: Effective contraception benefits both mother and child by improving the socio-economic status of women and decreasing morbidity and mortality. Data showed that the contraceptive prevalence rate in Muar dropped from 45% in 2017 to 23.8% in 2018. The objective of this study is

to determine the socio-demographic and perceptive factors affecting effective contraception acceptance in post-natal mothers in Muar.

Methods: This was a cross sectional study conducted on all post-natal mothers who attended post-natal follow up in all Muar health clinics between July and August of 2019. Data was collected via self-administered questionnaires and analysed using multiple logistic regression to determine the association of the variables with acceptance of contraception.

Results: The study conducted consisted of 359 respondents comprising of post-natal mothers. A majority of 90.3% respondents accepted contraception while 9.7% declined. 188 respondents (52.4 %) had prior use of contraception and were 4.1 times (95% CI 1.72 - 9.91) more likely to accept contraception again in family planning. Respondents who perceived contraception as easy to use, had an agreeable partner and perceived contraception was effective were 4.7 times (95% CI 1.83 - 11.93), 5.7 times (95% CI 2.12 - 15.21) and 3.5 times more likely (95% CI 1.38 - 8.75) to accept it as a family planning method respectively.

Conclusion: History of previous contraceptive use, an agreeable partner, perception of ease of use and that contraception was effective were significant factors accepting contraception. Postnatal counselling focusing on women and their husbands is important as both have a shared role accepting contraception in family planning.

Poster Abstract FPP23

Five-year trend of teenage pregnancy in Betong District, Sarawak

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Introduction: Teenage pregnancies are more likely to occur in marginalized communities, such as poverty, lack of education and employment opportunities. Teenage pregnancy is among the main social issues that involves Sarawak teenagers with substantial number of teenage pregnancies. Sarawak government has introduced One Stop Teenage Pregnancy Committee (OSTPC) involving various agencies to assist teenage mothers with complex issues. The aim of this study is to determine the percentage of teenage pregnancy in Betong, sociodemographic characteristic and deliveries outcomes.

Methods: This is a retrospective cross-sectional study done among registered teenagers who attended the antenatal follow up at maternal and child health clinic (MCHC) in Betong. The data was collected from RH101/2017 and OSTPC registry.

Results: 5-year trend shows reduction in the percentage of teenage pregnancies from 7.7% (2017), 5.6% (2018), 5.6% (2019), 6.2% (2020) to 5.8(2021). The percentage teenage pregnancies ranges 10-14years (3.78%),15-17years (41.47%) and 18-19years (54.75%) respectively. Unmarried trend of teenagers increases from 32.81% to 41.89% with 90.54% not schooling (2021) compared to 99.22% (2017). The percentage of unsafe deliveries show an increment from none in 2017 to 4.35% in 2021.

Conclusion: The 5-year trend teenage pregnancies in Betong division show reduction in teenage pregnancy, high among school dropouts with increased unsafe deliveries. Early health education on contraception can help to prevent unsafe deliveries among teenagers.

Poster Abstract FPP24

Hypertension among young adults: BP control, clinical characteristics and management profile

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Introduction: The prevalence of hypertension among young adults are increasing and with it the risk of cardiovascular events. This study was conducted to determine the prevalence of blood pressure (BP) control in young adults (18-39 years old), and their clinical and management profiles in Klinik Kesihatan Sungai Buloh.

Methods: This was a cross-sectional study of hypertensive patients registered in the hypertension and diabetic registry from December 2019 - December 2020. The sociodemographic, clinical and management profiles of 191 patients were extracted from the Tele-Primary Care (TPC) system. BP control targets were based on the latest Malaysian Clinical Practice Guidelines on hypertension and diabetes mellitus (DM).

Results: The median (IQR) age of the patients were 36 (5) years and most of them were Malays (77.5%), married (41.9%) and employed (67.5%). Almost all had essential hypertension (98.4%). Poor BP control was highly prevalent among the subjects (78.0%), especially among those with DM (90.0%). Most common comorbidity was obesity (73.4%), dyslipidemia (72.0%) and DM (47.6%). Only 38.7% had been investigated for secondary hypertension. Around one fifth had done home BP monitoring (25.6%). Two commonest types of anti-hypertensive prescribed were calcium channel blockers (79.1%) and angiotensin converting enzyme inhibitors (62.3%) and majority of them adhered to their medications (80.0%).

Conclusion: Poor BP control was worryingly high in young adults with hypertension, especially among those with DM. Thus, we suggest measures should be focused on this group to optimize their BP control and future studies to look into associated factors of poor BP control among young adults with DM.

Poster Abstract FPP25

Patient's characteristics and factors associated with severity of COVID-19 infections in primary care

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Introduction: Primary care service plays an important role in early clinical assessment of COVID-19 patients in Malaysia. We aim to study potential risk factors affecting COVID-19 severity at presentation to primary care facilities in the post-vaccination period.

Methods: Clinical records via Selangkah system of all diagnosed COVID-19 patients aged above 18 years seen at COVID-19 Assessment Centre (CAC) located in 10 government health clinics in Gombak district, Selangor state between 1st October 2021 to 31st December 2021 with complete documentation and outcome were retrieved. Socio-demographics, co-morbidities, clinical features, vaccination statuses and types were compared between mild and severe diseases. Multiple logistic regression was used to identify factors associated with disease severity.

Results: 4406 cases (median age: 37 years, male: 51.2%) were analyzed. Majority (97.1%) were mild and 2.9% were severe. Presence of hypertension (aOR=2.27, 95%CI:1.08, 4.75), fever (aOR=4.03, 95%CI: 2.09, 7.75), difficulty breathing (aOR=4.38 95%CI: 1.65, 11.59), throat irritation and runny nose (aOR=0.47, 95%CI:0.26, 0.84), oxygen saturation $\leq 95\%$ (aOR=131.84, 95%CI:24.63, 705.67), respiratory rate >math>\geq 20</math> breaths/minute (aOR=37.30, 95%CI:18.00, 77.43) and CoronaVac recipients (aOR=2.71, 95%CI:1.25, 5.88) were determinants for severity.

Conclusion: High proportion of mild cases in this study as compared to an earlier local study (81.8%) during the pre-vaccination period may suggest the impact of vaccination as 84.9% of patients were fully vaccinated. There was a significant difference between vaccine types against COVID-19 severity. Clinical features and comorbidity identified could assist primary care doctors to manage COVID-19 patients judiciously in terms of hospital referral or home quarantine.

Poster Abstract FPP26

Outcomes study of universal 6-days methadone takeaways during flood disaster in Klinik Kesihatan Temerloh December 2021: A cross-sectional study

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Introduction: Existing guideline in disaster management allows methadone clinic to prescribe methadone takeaway up to 6 days for all existing clients during disaster. However, the outcomes of this measure were not reported in Malaysia. The concerns of methadone takeaways were misuse, intoxication, and consumption by non-opioid user.

Methods: A cross-sectional study was conducted at Klinik Kesihatan Temerloh on all methadone clients through universal sampling. Data were collected retrospectively from 56 clients using a self-administered questionnaire. Descriptive analysis was performed. Fisher's Exact test was performed to identify the association between existing methadone supply and outcomes of universal methadone takeaways.

Results: 56 clients were eligible and recruited with response

rate of 100%. Mean age of study population was 46.9 years with 100% were male. Median duration in the methadone program was 11 years (IQR 8), mean methadone dose was 57.8mg (SD 24). Prior to flood, 58.9% (33/56) were on 3-days methadone takeaways. During flood, 92.8% (52/56) received takeaway methadone for 6 days. Out of these 52 clients, 92.3% (48/52) reported no issue at all. 1.9% (1/52) reported methadone changed in nature, 1.9% (1/52) reported inadequate methadone supply, and 3.8% (2/52) reported mild withdrawal symptoms. No serious adverse event reported. No association found between adverse outcomes of 6-days universal methadone takeaways and existing methadone supply (Fisher's Exact test $p=0.621$). Median satisfactory level was 8 (IQR 3), maximum score of 10.

Conclusion: Short term prescription of 6-days methadone takeaways, for both existing takeaway and non-takeaway users, was equally effective and safe during flood disaster.

Poster Abstract FPP27

Gender difference in the antimicrobial susceptibility patterns of uropathogen isolated in community acquired urinary tract infection in government health clinics in Klang

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Introduction: Community acquired urinary tract infection (UTI) is common and a majority of patients are prescribed with antimicrobials. There is a need to be aware of the local prevalent strain of uropathogens and its susceptibility to antimicrobial in order to decide the antimicrobial usage. We aimed to describe the gender difference of uropathogens and antimicrobial susceptibility patterns among patients with UTI over a two-year period in government health clinics in Klang.

Methods: This is a retrospective cross sectional study on urinary samples of patients attending government health clinics in Klang, which were sent to Hospital Tengku Ampuan Rahimah (HTAR) for laboratory culture and sensitivity from January 2018 till December 2019. Results were analysed with descriptive statistics. The Chi-square were applied for categorical variables.

Results: Urine cultures were analysed in 412 samples. Predominantly females (89.6%) than males (10.4%). Majority of the UTI are caused by Enterobacteriaceae family (79.6%). E. Coli dominated in both groups, female slightly higher frequency (59.0%) than in males (47.5%), followed by Klebsiella spp with higher frequency in female (17.0%) than in males (12.5%). Female has higher antibiotics susceptibility to Amoxicillin/Clavulanate and Cefuroxime compared to male ($P<0.05$). The most susceptible antimicrobial against the Enterobacteriaceae family was nitrofurantoin for both gender (83.3%) male and (88.5%) female.

Conclusion: Enterobacteriaceae family is the most common organism causing UTI among patients attending government health clinics for both genders. Nitrofurantoin was tested to be the most susceptible antimicrobial for Enterobacteriaceae

family for both genders, thus Nitrofurantoin should be considered as the first line treatment in community acquired UTI.

Poster Abstract FPP28

Concept Paper

Poster Abstract FPP29

The incidence and risk factors of anti-tuberculosis-drug-induced-hepatitis among patients treated in a primary health clinic in Kuching

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Introduction: Anti-tuberculosis regime is proven effective but potentially hepatotoxic. This study aimed to determine the incidence rate of anti-tuberculosis-drug-induced-hepatitis among patients in a primary clinic in Kuching, and to determine risk factors significantly associated with the adverse event.

Methods: A retrospective study was conducted by reviewing medical records of tuberculosis patients treated in Jalan Masjid Health Clinic from January 2015 to April 2019 (52months). Patients who developed drug-induced-hepatitis (after consuming standard anti-tuberculosis drug therapy for at least 5 days were labelled as “cases” whereas those with normal liver function tests were identified as “controls”. Each case was compared with 3 controls selected from the cohort using simple randomization. Age, gender, human immunodeficiency virus infection (HIV) status, smoking status, chronic alcohol consumption status and pre-treatment albumin level of both groups were compared. Data were analyzed by using chi-square and independent t-tests.

Results: Of 407 eligible patients, 7.86% (n=32) developed drug-induced-hepatitis. Only chronic alcohol consumption was significantly associated with the occurrence of drug-induced-hepatitis (p<0.05). There was no significant difference between case and control with respect to mean age (p=0.342) and mean pre-treatment albumin level (p=0.203). Besides, drug-induced-hepatitis was not associated with gender (p=0.206), HIV status (p=0.573) and smoking status (p=0.18). The liver enzymes peaked at a median of 14 days (IQR 13.0).

Conclusion: Incidence rate of drug-induced-hepatitis found in this study is 7.86%. Patients with history of chronic alcohol consumption should be closely monitored for drug-induced hepatitis.

Poster Abstract FPP30

Caregivers strain in parenting children with autism spectrum disorder (ASD) and Its associated factors in Kelantan

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Introduction: Caregivers face genuine challenges when caring for children with ASD due to their difficulties with social communication and behavior. Knowing the factors that predispose caregiver strain will encourage healthcare providers to take preventative steps when caring for children with ASD. This study investigates the caregiver strains using the Modified Caregiver Strain Index (M-CSI-M) and its associated factors in Kelantan.

Methods: The study is a cross-sectional study that involved 149 caregivers of autistic children in Hospital Raja Perempuan Zainab II (HRPZII) and Hospital Universiti Sains Malaysia (HUSM). Modified Caregiver Strain Index (M-CSI-M) was used to assess the caregiver strains, the Malay version of Brief Cope Scale was used to assess the coping skills, and a validated Malay version Multidimensional Scale of Perceived Social Support (MSPSS) scale was used to assess social support among caregivers. The associated factors of caregiver strain were identified using Multiple linear regression analyses.

Results: The mean caregiver strain score was 6.53 (SD2.96). A male caregiver (p =0.02), a higher level of education among caregivers (p=0.01), and ASD children with comorbidities (p=0.04) were associated with greater strain. Caregivers with higher coping skills and higher perceived social support are significantly associated with less strain in parenting children with ASD.

Conclusion: Good adaptive coping strategies and higher perceived social support can help reduce the strain on caregivers. Screening for caregiver strain should be done during children's follow-ups as a preventive measure to reduce caregiver strain and improve the overall quality of life in ASD families.

Poster Abstract FPP31

Prevalence of loneliness and its associated factors among elderly attending primary health clinics in Kuantan, Pahang

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Introduction: This study aimed to determine the prevalence of loneliness and its associated factors among the elderly attending primary health clinics in Kuantan, Pahang. Methodology: This was a cross-sectional study conducted at four selected primary health clinics in Kuantan. The inclusion criteria are Malaysian

citizens aged 60 years and above while the exclusion criteria are those who are unable to understand Bahasa Malaysia and those with underlying psychiatric disorders. Three hundred and fifty elderly were recruited to complete the interview-based questionnaire, which consists of two sections, the sociodemographic profiles and the validated Malay version of the 6-item De Jong Gierveld Loneliness Scale. In the data analysis, a descriptive statistic was used to measure the prevalence of loneliness and binary logistic regression to explore the association of loneliness with the background variables.

Results: Most of the respondents are elderly aged 60-79 years old (97.1%), female (69.1%), Malay (77.1%), married (62%), have at least 1 alive child (94.9%), and lives together with their children (65.1%). The overall prevalence of loneliness was 48% with 82% of them experiencing moderate loneliness and 18% experiencing severe loneliness. This study revealed a significant association between loneliness among single/widowed/divorced/separated (AOR 2.492, 95% CI 1.365-4.552) and those who self-rated their relationship with family members as fair or poor (AOR 3.928, 95% CI 1.721-8.963).

Conclusion: This study revealed that almost half of the elderly attending primary health clinics experienced loneliness with being single/widowed/divorced/separated and those who have fair or poor relationship with family are associated with loneliness. Therefore, primary health clinic is the best place to do an opportunistic screening on loneliness. By targeting factors associated with loneliness, the well-being and quality of life of the elderly can be improved and this will lead to healthy aging.

Poster Abstract FPP32

Dextrocardia and situs inversus in a 35-year-old man: A case report

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Introduction: Dextrocardia is a rare congenital condition that affects an estimated 1 in 10,000 life birth. It can occur on its own with abnormal positioning of the heart in the right half of the chest or can be accompanied by a reversal in the position of other organs (called situs inversus).

Case report: A 35-year-old man with young hypertension and obesity was evaluated for secondary hypertension during his follow-up. Clinical examination revealed incidental finding of right-sided heart sound. Chest radiography showed cardiac apex pointing to the right, with the aortic arch and stomach bubble on the right side. Electrocardiogram revealed dextrocardia as evidenced by right axis deviation, inversion of all complexes in lead I, upright p wave in AVL, and an absent R wave progression in the anterior leads. The diagnosis of dextrocardia and situs inversus was disclosed and explained to the patient in detail.

Conclusion: Though not a common occurrence, understanding the incidence, presentation, aetiology, and management of dextrocardia is essential for all healthcare providers. Identifying this disorder increase awareness of the patient on the possibilities of unusual clinical manifestation

of life-threatening condition, avoiding missed or delayed diagnosis. The provision of dextrocardia medical tag ensures the optimal treatment by the healthcare provider at the right time.

Poster Abstract FPP33

Postpartum depression: Mental health literacy among antenatal women and their husband attending Klinik Kesihatan Kempas

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Introduction: Postpartum Depression (PPD) is a significant mental health issue in globally. Poor social support and poor marital relationship play significant risk factors for PPD. Husbands also play an essential role prevention of PPD subsequently in recognizing the early presentation of PPD among those women. This study assessed mental health literacy on PPD among antenatal women and their husbands. Subsequently, the differences in mental health literacy, the influencing factors, and the source of seeking help and seeking information about PPD were determined.

Methods: This was a cross-sectional study that involved a public health clinic in Johor Bahru, Johor using a validated self-administered PPD Literacy Scale (PoDLiS), which contained 31 items.

Results: The mean score of PPD literacy for antenatal women was 3.66 (0.48) and for their husband was 3.70 (0.51). There was no significantly different between the PPD literacy of the antenatal women and their husband. PPD literacy of antenatal women and their husbands significantly associated with monthly income, education, and the self-experienced of PPD or family history of PPD. There was also significantly association between the ethnicity and PPD literacy among the antenatal women while among the husband there was significant association between monthly income and PPD literacy. Most participants describe their primary source of seeking information was the internet, and the primary source of seeking help was their family members.

Conclusion: Antenatal women and their husbands have a moderate level of PPD literacy overall. This may indicate the need for the development of intervention and continuous educational programs to increase their PPD literacy.

Poster Abstract FPP34

An association of autoimmune haemolytic anaemia with Covid-19: A case from primary health clinic

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Introduction: The association of AIHA with Covid-19 infection is well described in previous studies although rare.

Covid-19 can trigger or exacerbate AIHA in genetically susceptible individuals. The exact mechanism for the linkage is unclear. However, molecular mimicry is thought to play a role.

Case report: We present a 45-year-old female with a background of hypothyroidism and macrocytic anaemia who was diagnosed with AIHA during her recovery from Covid-19 infection. She presented with acute haemolysis following Covid-19 infection. Her initial blood tests showed laboratory evidence for autoimmune-related haemolysis. The subsequent autoimmune screening revealed undiagnosed Autoimmune Thyroid Disease with the presence of another autoimmune disease suggesting a genetically susceptible background of the patient for AIHA. In this case, the true aetiology of the macrocytic anaemia was unknown; until Covid-19 infection exacerbated the pre-existing condition. She recovered and responded well to steroid therapy. Further review, she did not show any clinical or laboratory evidence for haemolysis after 2 months of stopping steroid therapy.

Conclusion: Lack of knowledge in the association of AIHA with Covid-19 and the absence of clinical features of acute haemolysis in the early part of the disease led to a delay in diagnosis of AIHA in this patient. Therefore, the occurrence of anaemia or worsening of underlying anaemia following Covid-19 infection should trigger the clinician the diagnosis of AIHA, especially in genetically susceptible patients.

Poster Abstract FPP35

Preterm birth rate and its associated factors in Kuantan, Pahang

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Introduction: Preterm birth is a serious public health issue because of its consequences for new-born morbidity and mortality. We aim to determine the preterm birth rate over five years and its associated factors among antenatal mothers in Kuantan, Pahang.

Methods: A retrospective cohort study was conducted in 11 health clinics, Kuantan using secondary data. Analysis of all antenatal books resulted in preterm birth from January 2016 until December 2020 were included in the study. Data related to mother's sociodemography, antenatal care history, cause of preterm birth were taken and analysed using SPSS Version 25.0.

Results: A total of 870 preterm births were included in this study. The preterm birth rate for the past 5 years was 4 in 1000 live birth. 29 cases (3.3%) and 75 cases (8.6%) were extremely preterm (less than <28 weeks) and very preterm (28 to <32 weeks), respectively. 766 patients (88%) were grouped under moderate to late preterm (32 to <37 weeks). Most of the pregnant ladies were married (97.4%), Malay (93.4%), aged between 30 to 40 years old (45.3%). Non-married mother

has 3.4 times higher odd (aOR: 3.4, CI: 1.35- 8.56); secondary school education level has 1.9 times higher odd (aOR: 1.89, CI: 1.19- 2.99); history of previous abortion has 1.6 times higher odd (aOR: 1.62, CI: 1.02- 2.57) of extremely preterm/very preterm birth outcome.

Conclusion: In conclusion, the preterm birth rate in our study was similar to the national rate. The preterm birth is significantly associated with non-married women, lower educational level and had previous abortion.

Poster Abstract FPP36

Knowledge and attitude towards women's breast cancer among male employees in Universiti Sains Malaysia

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Introduction: Breast cancer is the most common type of cancer among Malaysian women. One factor that contributed to the delay was men's lack of understanding and negative attitude about breast cancer. Men should have sufficient knowledge and a positive attitude to assist women in making health- screening decisions. The purpose of this study is to describe men's knowledge and attitudes concerning women's breast cancer and to look for association between them.

Methods: This cross-sectional study included 360 male employees over the age of 20 who work at the Universiti Sains Malaysia Health Campus in Kelantan. A validated Malay version of knowledge and attitude questionnaires was distributed and analysed, with 32 knowledge-related items and 16 attitude-related items.

Results: The prevalence of good knowledge was 61.9%. Almost half of them were aware of breast cancer's signs and symptoms. Approximately 40% are aware that mammography should begin at the age of 50 in healthy, low risk women. Using Pearson's correlation coefficient, we can see that there is a statistically significant association between knowledge and attitudes, but it is only faintly positive at 0.27.

Conclusion: The findings show that additional efforts are needed to increase men's knowledge about breast cancer, as men have a significant influence on women's health. Although there is a significant weak correlation between knowledge and attitude, clinically it has a positive impact on our community.

Poster Abstract FPP37

A quality assurance project to reduce the number of prescription errors at outpatient department of Klinik Kesihatan Telok Panglima Garang

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Introduction: Medications prescribed at primary care clinics

are diverse and sometimes complex. With substantial and increasing medication use, comes a growing risk of harm. According to the biannual report by the district Jawatankuasa Ubat & Terapeutik (JKUT), Telok Panglima Garang health clinic had the highest number of prescription interventions for errors in two consecutive years. This study was undertaken to identify causes of medication errors and to implement remedial measures to reduce the number of interventions on prescriptions.

Methods: A total of 4535 prescription slips filled between August-October 2020 were reviewed for types of prescription errors requiring intervention by pharmacists at baseline. Intervention comprised of education training, structured process change and patient education. Pharmacists' intervention rates were then again measured at 2 months post intervention for comparison.

Results: The post remedial intervention rates reduced to 2.46% (103 interventions) compared to the pre remedial 3.11% (155 interventions), achieving the standards we have set for this QA study. Omission error rates decreased substantially from 32.26% to 25.24% following the remedial measure of the numbered stamp. However, we were unsuccessful in reducing the incorrect drug selection and drug frequency errors.

Conclusion: Our study suggested that the number of prescription errors in the outpatient department was high. With implementation of appropriate remedial actions, we managed to bring down the number of prescription errors. However, ideally prescription errors should not occur at all, hence there is still room for improvement.

Poster Abstract FPP38

A rare case bifid rib in a 4 year old girl with chest wall swelling

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Introduction: A bifid rib is a rare congenital anomaly of the anterior chest wall that is usually asymptomatic and, in some cases, patients come with chest wall deformity. It can also be associated with other congenital anomalies, such as Gorlin syndrome.

Case report: In this case report, we present a rare case of a 4-year-old girl with right anterior chest wall swelling who was diagnosed as having a right bifid rib from a plain chest radiograph.

Conclusion: We want to highlight the importance of comprehensive examination and regular follow-up in patients with anterior chest wall swelling to prevent any serious complications in the future.

Poster Abstract FPP39

Sexually transmitted infections (STIs) in reproductive age women: A call to action

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Introduction: STIs constitute a significant public health challenge that substantially affects sexual and reproductive health, contributes to pregnancy complications, and facilitates HIV acquisition. Given the paucity of published data, this study aimed to determine the prevalence of STIs among symptomatic reproductive-age women in primary care and their characteristics.

Methods: The records of female patients aged 15-49 who presented to Putatan Health Clinic due to vaginal discharge between January 2022 and June 2022 were analysed retrospectively. They were screened for Trichomonas Vaginalis (TV), Neisseria Gonorrhoea (NG), Syphilis, HIV, Hepatitis B, and Hepatitis C infection during the presentation. STIs were diagnosed through confirmed positive samples from vaginal discharge or blood.

Results: A total of 106 cases were analysed. The prevalence of STIs was 59.5%, with TV (62.5%) being the most common STI, followed by NG (37.5%). Multi-aetiology STIs were detected in 23.8% of cases. One patient was newly diagnosed with Hepatitis B. The majority of women with STIs were between 20-29 years and from two major ethnicities in Sabah. Most were married, housewives and more than half the women were pregnant during the presentation. The majority reported being in a monogamous sexual relationship since the past six months, being heterosexual, not using condoms, being non-smokers, and not consuming alcohol or drugs. Only 14.3% of women had past STIs.

Conclusion: STIs are highly prevalent among symptomatic reproductive-age women attending primary care; hence, laboratory facilities for STI screening should be made widely available in all health clinics. STI screening is strongly advised for all reproductive-age women presenting with vaginal discharge, regardless of their self-reported sexual behaviours, marital status, or pregnancy status.

Poster Abstract FPP40

Prevalence of urinary incontinence among elderly in primary health clinics in Kuantan, Pahang

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Introduction: Globally, urinary incontinence is a prominent and widespread disease among the elderly. Frequently under-reported and misunderstood caused social, economic, and health issues. The goal of this study is to identify the prevalence of urinary incontinence in the older population in primary health clinics in Kuantan, Pahang, and the factors that influence it.

Methods: A cross-sectional study was carried out at six primary health clinics in Kuantan, Pahang, chosen by simple random sampling. The sequential sampling approach was used to choose 314 individuals. Malaysian nationals aged 60 and above who could comprehend Bahasa Malaysia were eligible to participate, with no exclusions. The selected subjects were interviewed in person using validated Malay questionnaires that included

sociodemographic profile, the International Consultation on Incontinence Questionnaire Urinary Incontinence Short Form (ICIQ-SF), and the Geriatric Depression Scale (GDS-15).

Results: The chi-squared test of independence was used to for the statistical analysis, followed by linear regression and binary logistic regression. Urinary incontinence was found in 12.1 percent of the population, with a mean age of 69.13 years (SD= 7.19). Women (59.6%) and Malays made up the majority of the participants (80.3%). Age (AOR=1.07, CI=1.01-1.14, p-value=0.017), constipation (AOR=7.86, CI=1.94- 31.90, p-value=0.004), neurological disease (AOR=0.03, CI=0.01-0.09, p-value=<0.001) and benign prostatic hyperplasia (AOR=0.03, CI=0.001-0.48, p-value=0.015) were major factors linked with urinary incontinence.

Conclusion: An increase in age had a 1.07 times higher chance of developing urine incontinence, while those with constipation, neurological disease, or benign prostatic hyperplasia also have a higher chance of developing urinary incontinence.

Poster Abstract FPP41

Comparison of maternal and neonatal outcome in women additionally diagnosed according to new gestational diabetes mellitus (GDM) criteria with women without GDM in Klang District- A retrospective observational study (MANO-GDM)

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Introduction: Diagnostic criteria of GDM has been revised according to the clinical practice guideline of management of diabetes in pregnancy in 2017 with lower cut off fasting plasma glucose(≥ 5.1). The aim of this study was to evaluate the possible impact on the number of women diagnose when adopting new criteria and also to compare the maternal and fetal outcome in the possible additionally diagnosed GDM to non GDM mother before adopting new diagnostic criteria in Klang district.

Methods: This is a retrospective observational study involving 9 government health clinics in Klang district. We reviewed all pregnant women who have undergone oral glucose tolerance test (OGTT) from January to June 2018. Pregnant women with non GDM(n=275) and possible additionally diagnosed GDM (n=225) were randomly selected. Demographic data, risk factors, OGTT result, neonatal and maternal outcomes were obtained from medical records.

Results: The incidence of additionally diagnosed GDM according to the new criteria was 5.8%. There was no difference in the incidence of preeclampsia, emergency caesarean rate, macrosomia, hypoglycemia between these 2 groups except higher incidence of neonatal jaundice in additionally diagnosed GDM. (55% vs 45%). Mean birth weight of additionally diagnose GDM and non GDM group was 3094g and 3014g which was not statistically significant (p value =0.058)

Conclusion: There was no increase in unfavourable maternal and fetal outcome in the possible additionally diagnosed GDM women.

Poster Abstract FPP42

Primary prevention among patients with high cardiovascular risk in primary care: Do they achieve treatment targets?

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Introduction: Cardiovascular disease (CVD) risk factors (smoking, obesity, hypercholesterolaemia, hypertension, diabetes, poor lifestyle) contributed to 90% of first myocardial infarction, thus intensive primary prevention is paramount to prevent the first CVD event. This study aimed to determine the achievement of treatment targets among high-risk patients.

Methods: This cross-sectional study was conducted at a primary care clinic in Selangor between February and June 2022 among high-CVD risk patients, i.e., multiple CVD risk factors which equates to > 20% of risk calculated using Framingham general cardiovascular risk score, diabetes without target organ damage, stage 3 chronic kidney disease, and very high levels of individual risk factors: low-density lipoprotein cholesterol (LDL-c) >4.9 mmol/L and blood pressure (BP) >180/110 mmHg. Those with existing CVD were excluded. The treatment targets were set according to the Malaysian Clinical Practice Guidelines on Primary and Secondary Prevention of CVD, i.e. LDL-c of < 2.6 mmol/L, BP of <140/90 mmHg ($\leq 135/75$ for diabetics), and HbA1c of $\leq 6.5\%$.

Results: 390 participants were recruited. The mean age (SD) was 62.8 years (8.3). 49.1% were females. Only 28 patients (7.2%) achieved all treatment targets. About 60% of patients achieved their LDL-c target. For diabetes patients, 27.2% had HbA1c of $\leq 6.5\%$, while 33.3% and 38.6% reached their systolic and diastolic BP targets, respectively. For patients without diabetes, about 41.7% and 76.2% achieved systolic and diastolic BP, respectively.

Conclusion: Only a small proportion of patients achieved all treatments targets. Apart from LDL-c and diastolic BP, the majority did not reach their target for the individual risk factors. Urgent measures are needed to address these findings.

Poster Abstract FPP43

Efficacy of intravenous iron dextran and predictors of hemoglobin responsiveness in the treatment of anemia in pregnancy

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Introduction: Iron deficiency is the commonest cause of anemia in pregnancy due to increased iron demands from the growing fetus and placenta as well as maternal blood volume expansion. Parenteral iron therapy has been shown to restore iron stores faster and more effectively than oral iron. We would like to examine the efficacy of iron dextran and identify the predictors of hemoglobin responsiveness to iron dextran among pregnant women in Malaysia.

Methods: We included all anemic (hemoglobin level <11 g/dL) pregnant women who received parenteral iron dextran from all health clinics in Kampar district. Iron deficiency was defined as transferrin saturation <20% or ferritin level <30 µg/L. Hemoglobin responsiveness was defined as a rise of hemoglobin level >1 g/dL.

Results: A total of 193 pregnant women with median age of 29 (23 - 34) year old were included. The ethnicity comprised 72.5% Malay, 8.3% Chinese and 11.4% Indian. The median hemoglobin level was 10.5 (10.1 - 10.8) g/dL, with median transferrin saturation of 23.8 (13.7 - 31.9) % and median ferritin level of 39.9 (14.7 - 66.6) µg/L. 53.6% had iron deficiency and the hemoglobin responsive rate was 9.8% at 2-week, 28% at 4-week and 43% at 6-week. In backward logistic regression analysis, being Indian (AOR=6.67, 95%CI 1.914-23.232, P=0.003), having lower gravidity (AOR=1.272, 95%CI 1.018-1.592, P=0.034) and having iron deficiency (AOR=2.782, 95%CI 1.432-5.406, P=0.003) were associated with hemoglobin responsiveness at 6-week.

Conclusion: 43% pregnant women showed hemoglobin responsiveness within 6 weeks of intravenous iron dextran therapy. Indian ethnicity, gravidity and iron deficiency state were the predictors of hemoglobin responsiveness.

Poster Abstract FPP44

Glycemic control among patients with type 2 diabetes two years after implementation of Enhance Primary Health Care (EnPHC) in Muar District

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Introduction: Malaysia has the highest rate of diabetes in Western Pacific region and one of the highest in the world. The Ministry of Health introduce Enhance Primary Health Care (EnPHC) consisting of early screening, systematic management, and referral of non-communicable disease (NCD) in response to overwhelming NCD challenges. Study objectives are to determine the glycemic control 2 years after implementation of EnPHC and to assess the influence of demographic and clinical factors on glycemic control.

Methods: The study design is a cross sectional study where the 2019 data was collected from patient digital medical records at EnPHC Health Clinic in Muar District. The study enrolled type 2 Diabetes patients who were registered at the clinic.

Results: A total of 925 patients were included in the study. Majority were female (65.3%) and Malay (71.1%). The overall mean age was 65.3 + 10.4 years (range: 24 - 92 years). The mean Diabetic duration was 9.2 + 5.1 years (range:

2 - 35 years). There was a reduction of mean HbA1c pre implementation from (8.34 + 2.07) to (7.96 + 1.86) 2 years post implementation EnPHC. Factors affecting good Diabetes control were older age, shorter duration of Diabetes, Lower BMI, Lower Total cholesterol, Triglycerides, LDL, eGFR and Diastolic Blood Pressure.

Conclusion: Implementation of early screening, systematic management, and referral with multidisciplinary involvement of diabetes care is warranted for better glycemic control outcome at the primary care setting.

Poster Abstract FPP45

Exploring the diabetic foot protection services in primary health clinics in Kuantan, Malaysia: A qualitative study

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Introduction: The diabetic foot is a common complication of diabetes. From the latest Management of diabetic foot (2018) guidelines, the Ministry of Health suggested developing a foot protection team in the primary care clinics, which will reduce hospital admissions, length of stay, and amputation rate. However, there are barriers to establishing this team. This research aimed to explore the current workflow system in managing diabetic foot, healthcare providers' challenges in managing diabetic foot, and the barriers in implementing the guidelines into practice in primary care clinics in Kuantan.

Methods: Semi-structured interviews were conducted among 12 healthcare providers (4 family physician specialists, 4 medical officers and 4 diabetic nurses). Interviews were recorded and transcribed verbatim. Data collected was analyzed via thematic analysis.

Results: We found that barriers related to funds are lack of staff, lack of training, and lack of resources. While barriers related to the use of guidelines included unawareness of new guidelines, the guideline is not readily available, and a tendency to use only the diabetic book as a reference for screening. Challenges related to patient care were no standardization of care, insufficient time to educate on foot care, insufficient time for proper diabetic foot screening, and poor communication between the primary care team and tertiary team about patient care.

Conclusion: There are many challenges that need to be addressed before the diabetic foot protection team can be established successfully. One of the initiatives that can be developed is a clear workflow algorithm suitable to be used in clinic settings.

Poster Abstract FPP46

Acute oncology service: A retrospective study on the incidence of febrile neutropenia in Institut Kanser Negara

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Introduction: Acute oncology service refers to the availability of treatment and expertise for cancer emergencies. This service offers immediate critical treatment in cancer patients since they are immunocompromised and predisposed to life threatening infections. Cancer patients may appear relatively stable at initial presentation but will experience deterioration after several hours or days. In fact, Malaysia has only one acute cancer care unit which is newly established in Institut Kanser Negara since 2016. However, to date there is scarce evidence measuring the incidence of post chemotherapy febrile neutropenia in the Institut Kanser Negara (IKN). Literature has shown this data is no less important and remains as another crucial input associated with managing oncological emergencies. Nevertheless, this study will be the pilot study on the incidence of post chemotherapy febrile neutropenia in IKN. This study will further clarify the incidence of febrile neutropenia with types of chemotherapy associated with the disease.

Methods: This is an observational, retrospective cross-sectional study on the population of cancer patients who developed febrile neutropenia following chemotherapy.

Results: Total of 2309 patients which are screened to rule out febrile neutropenia and noted that 150 (6.49%) of patients are having febrile neutropenia in 2020, 137 (6.7%) of patients in 2019 and 120 (5.88%) of patients in 2018. The most common preferred antibiotics therapy is intravenous Cefepime, which consist of 130 (86%) patients in 2020, 122 (89%) patients in 2019 and 110 (91%) patients in 2018. In addition to that, the average door to needle antibiotics therapy for post chemotherapy febrile neutropenia is 30mins.

Conclusion: Febrile neutropenia is commonly seen in cancer patients in relation to ongoing chemotherapy treatment. Early intervention can be done by early recognition based on the clinical symptom especially in the acute cancer care unit.

Poster Abstract FPP47

Factors affecting the access to healthcare services among type 2 diabetes patients under PeKa B40 program in Klinik Kesihatan in Melaka, Malaysia: A qualitative study

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Introduction: Healthcare access disparities and health outcomes inequities exist with the socially disadvantaged group having poorer health outcomes. This study was to explore the factors affecting the access to healthcare services among Type 2 Diabetes Mellitus (T2DM) patients under PeKa B40 program in public health clinic in Malaysia. The access to healthcare was evaluated from the availability of resources provided, physical accessibility, accommodation of services provided to patients' preferences and acceptability of patients' perspective towards providers characteristics and vice-versa.

Methods: Purposive sampling was used to recruit T2DM patients with at least six months history of diabetes under PeKa B40 program attending Klinik Kesihatan Ayer Molek,

Melaka. Semi-structured in-depth interviews were conducted. The responses were audio recorded, transcribed verbatim and analyzed using thematic analysis.

Results: Fifteen respondents from multiethnicity (53% Malay, 27% Chinese and 20% Indians) were interviewed. Factors affect the access to healthcare include limited access to dietitian counselling and physiotherapy in the aspect of availability. Barriers in physical accessibility due to difficulty in accessing transport. Dissatisfaction on waiting time, limited knowledge on after-hours services and disagreement on follow-up interval were identified in the aspect of accommodation. Lastly, in the dimension of acceptability, language barrier was reported.

Conclusion: Recommendations to enhance healthcare accessibility include improve access to multidisciplinary care approach; provision of transportation service; measures to reduce waiting time; disseminate information about after-hours service; set mutually agreed follow-up interval; consistent maintenance and upgrade of facility amenities and remove language barrier through multiethnic healthcare providers posting and training of medical interpreters.

Poster Abstract FPP48

A unique presentation of face swelling in a toddler with bronchopneumonia

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Introduction: Parotitis is inflammation of the parotid glands that result from infection or various inflammatory conditions. In contrast to a typical case of paediatric pneumonia, our case involves a toddler with pneumonia accompanied by acute parotitis which warrants an additional management approach. To our best knowledge from literature reviews, there were no similar cases reported in Malaysia.

Case report: Two years six-month-old boy, presented with a cough for two weeks, and one-day history of fever, reduced oral intake and reduced activity. He was diagnosed with bronchopneumonia as clinical history, physical examination and investigations were suggestive. Subsequently, within 24 hours, he developed swelling on the left side of the temporomandibular area. Diagnosis of left acute parotitis was made, supported by ultrasound findings that also rule out other associated pathology. Initial antibiotic intravenous c-penicillin was changed to intravenous amoxicillin-clavulanic acid. After three days of therapy, the child still demonstrated persistent spikes in temperature with increment in inflammatory marker. Intravenous cefuroxime was substituted followed by a resolution in fever within 24 hours and a reduction in parotid swelling.

Conclusion: Pneumonia is a risk factor for acute parotitis because it often leads to dehydration from poor oral intake. Pathogens may spread through ascending bacterial infection over the salivary duct or hematogenous route. Parotitis is a clinical diagnosis and an ultrasound neck helps to rule out other diagnoses such as abscesses. Hydration, analgesia, and broad-

spectrum antibiotic therapy are the mainstays of treatment for acute bacterial parotitis. Early diagnosis and the right treatment are crucial to prevent complications.

Poster Abstract FPP49

An evaluation of mental health impact among flood victims of primary health care facility

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Introduction: Bukit Changgang faced unexpected major flooding in December 2021. This natural disaster frequently poses significant effect to mental health. Stress reactions, anxiety, depression and emotional instability are commonly seen after flood events. Due to the significant consequences, effective intervention is needed after occurrence of flood. Psychological first aid (PFA) is an important tool to improve adverse mental health effect following disasters. The purpose of this study is to evaluate the proportion of mental health impact among flood victims and to compare mental health status pre and post psychological first aid intervention.

Methods: The study has been undertaken at Klinik Kesihatan Bukit Changgang in Banting from 27th December 2021 until 31st January 2022. Among 31 healthcare workers who were flood victims, 30 consented to join this study. DASS-21 is used to assess psychological symptoms prior to and following group and individual PFA intervention.

Results: There were 6 male and 24 female participants. Majority age ranges from 30-34 year old and were from Service Support Group 1. The proportion were higher in female group (79%), aged 30-34 and from Service Support Group 1. The proportion of abnormal DASS was 80% pre PFA intervention with reduction to 27% post intervention.

Conclusion: PFA is an effective tool to help psychological recovery after disaster. Other factors that contribute to support mental health are inner resilience, social support and financial support.

Poster Abstract FPP50

Flood disaster management form primary health care

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Introduction: Experience sharing of flood disaster management at primary health care

Case report: The extraordinary circumstances of flooding at Bukit Changgang December 2021 came shocking to the community as there was no prior experience of major flooding. It resulted in property damages, loss of livelihoods, ill health, and socio-economic impact. Flood victims are predisposed to illnesses resulting from inadequate clean water supply, poor sanitation or drainage system, food borne diseases and overcrowding evacuation centers. As a primary health care

provider, we must determine how to response to requirements of our patients and community. Eleven temporary evacuation centers were set up at Bukit Changgang during this calamity accommodating 4583 flood victims. Health care providers from Bukit Changgang Health Clinic were deploy as medical rapid response team during the initial stages and mobile medical team were assembled to deliver health services on daily basis. Daily census was collected. Despite managing acute illness, we have also maintained care for maternal and child health and chronic diseases.

Conclusion: With Bukit Changgang Health Clinic and roads submerge, loss of telecommunication services, disruption of electric supply, lack of health personals as they are flood victims and our country still battling Covid 19 pandemic, delivery of health services by primary care provider became a great challenge. Synchronized coordination with diverse efforts by various units is the mainstay to achieve proper management during this disaster. Emergency response networking with effective communication and integration has directly augment crisis support. Thus, primary health care has played instrumental role providing emergency medical assistance involving disaster in community.

Poster Abstract FPP51

Identification of neuropathic pain among diabetic patients with chronic lower limb pain using the Douleur Neuropathique 4 Questions (DN4) Questionnaire

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Introduction: Chronic lower limb pain is common among patients with type 2 diabetes. Identification of neuropathic pain (NP) in this group of patients is important for appropriate subsequent management. This paper aims to describe the use of the Douleur Neuropathique 4 Questions (DN4) questionnaire to detect possible NP among diabetic patients with chronic lower limb pain attending a university-based primary care clinic.

Methods: This cross-sectional study was conducted among adult diabetic patients who had lower limb pain for at least 3 months' duration. The DN4 questionnaire consisted of 4 main domains, including verbal interview on the nature of the pain and associated symptoms and physical examination for hypoesthesia and allodynia. A score of 4 out of 10 is significant for NP. The researcher underwent training with a neurologist to properly administer the physical examination component of the DN4. Pain severity was characterized using the numeric pain rating scale.

Results: Administration of the DN4 took an average of 7 minutes per patient. Of the 344 patients in this study, 50 (15.7%) had a score of 4 or more. About 80% (n=40/54) of patients with NP had moderate to severe pain, compared to 14.8% (n=43/290) of patients with non-NP.

Conclusion: DN4 is a useful tool that is easy to administer in the primary care setting to screen for NP. Comparison of

the DN4 findings with clinical neurological examination can provide additional validity for its role as a diagnostic tool in the local setting.

Poster Abstract FPP52

Caregivers' vaccine hesitancy – A scoping review

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Introduction: Vaccine hesitancy refers to delay in acceptance or refusal of vaccination despite its availability. COVID19 pandemic has increased public concerns towards vaccines hence influences the acceptance to the existing vaccination program in primary care. We aim to summarize the prevalence and factors associated with childhood vaccine hesitancy among caregivers.

Methods: This scoping review was conducted in accordance with PRISMA-ScR checklist. Scopus®, Cochrane Library and PubMed® databases were searched and filtered to include full-text English articles published from January 2016 to November 2021.

Results: 83 articles were eligible out of 576 articles retrieved. Half were cross-sectional studies and published within the last 2 years. 39% articles were from USA, Canada and Italy. The mean prevalence of vaccine hesitancy was 25.8% (3%-50.6%). Caregivers' factors which were belief, knowledge and attitude about health (78%), trust to health system (33.7%) and socio-demographic (32.5%) formed the major theme while other themes were less significant: contextual factors (13%), healthcare worker (9%), and vaccine's specific (3%).

Conclusion: An emerging issue during COVID19 pandemic especially in developed countries, vaccine hesitancy requires multi-interventional approach to increase caregivers' confidence and competence in vaccination for their children.

Poster Abstract 53

A sharing experience in community-based food and health promotion programme for one to five years old undernutrition orang asli children in Semenyih, Hulu Langat, Selangor

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Introduction: From Malaysia National Health & Morbidity Survey 2019, stunting of all children below five increased from 17.7% to 21.8% respectively in between 2015 to 2019. Based on data from the Nutritional Unit of the State Health Department Selangor 2019, there were 57.2% of Orang Asli (OA) children in Hulu Langat district were undernutrition and 24.5% were from Sg Lalang Baru OA village. This programme aims to increase participants' weight and to give families basic health education.

Methods: This 13-week programme was done involving 13 Orang Asli underweight and stunting children aged between 1 year to 5 years old, with their parents. Anthropometric measurements were taken and recorded. This programme was conducted every 2-weekly for health education alternate with helping and educating families in preparing balanced healthy food. They also were given formula milk monthly for the child to consume throughout the programme.

Results: As a result, it showed that the age of the participants was around 1.8 years to 4.2 years old with a mean age 2.90 (SD 0.91) years old. From this, 46.2% were male and 53.8% were female gender. Most of the participants were underweight (84.6%) and 15.4% were stunting. The percentage of a successful outcome in this programme increased to 75.0% for the underweight and 50.0% for stunting.

Conclusion: Undernutrition among Orang Asli is a complex issue that needs to be addressed by the multidisciplinary team to tackle the relevant health issue. Collaboration between multiagency is needed in ensuring a holistic approach to delivering the full package of interventions for the undernutrition child.

Poster Abstract 54

Multidisciplinary elderly care in a seamless way: a pilot study

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Introduction: Breaching silos and promoting multidisciplinary and seamless approach is the way forward for elderly care. This pilot study aims to introduce multidisciplinary elderly care in Klang Health District.

Methods: A multidisciplinary team was formed. Meetings were held monthly to discuss complicated cases with geriatric syndromes needing medical and psychosocial intervention. Comprehensive Geriatric Assessments (CGA) were performed, specialists and allied health referrals were facilitated and assistance from several NGOs and community were identified. Modified Barthel Index (MBI) was used to assess the functional level.

Results: A total of 101 patients have been recruited; (mean age 73.4 years, 62.4% females). The majority have a Clinical Frailty Score (CFS) of 4 (47.5%). Among the geriatric giants, 84.2% had cognitive impairment, 74.3% had recent falls, immobility (23.8%), incontinence (25.7%), and polypharmacy (68.3%). In terms of healthcare utilization, 81.2% undergo occupational therapy, 73.3% physiotherapy, 53.5% pharmacist, 18.8% dietary consultation, 17.8% Medical Social Worker (MSW), 10.9% psychologist, and 4.0% speech therapy. Subsequently, 43.6% were referred to the geriatric team for further management, 22.8% of patients required home visits, 11.9% cases required family conferences, 31.7% were given caregiver training, and 23.8% have liaised with (NGOs). There was 65.3% of patients-maintained follow-up after CGA. Of

these, there was a small increment of mean MBI from 84.98 (SD13.90) to 85.12 (SD16.57), but statistically not significant ($p=0.823$).

Conclusion: The study has provided an avenue for multidisciplinary elderly care in a seamless way using CGA. Even though MBI difference was not statistically significant after CGA, there was clinical improvement observed among many patients.

Poster Abstract 55

Knowledge and practice of diabetic foot care and the associated factors for practice among patients attending outpatient clinics in Kuala Terengganu, Terengganu.

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Introduction: This study was aimed to determine the proportion of good knowledge and practice of diabetic foot care and its associated factors for good practice among patients attending outpatient clinics in Kuala Terengganu, Terengganu.

Methods: A cross sectional study was conducted involving 383 diabetic patients attending outpatient clinics in Kuala Terengganu who fit the inclusion and exclusion criteria and they were recruited using systematic sampling. A self-developed and preliminary tested administered questionnaire was administered and consisted of 3 domains assessing the sociodemographic data, knowledge and practices about diabetic foot care. Each knowledge and practice domain consist of 15 questions. Their score is classified as good knowledge, poor knowledge, good practice and poor practice. The score of more than 70% is considered as good knowledge and practice for both domain.

Results: Median age of the respondents was 60.0 (IQR 12). 70.2% of the respondent had good knowledge regarding diabetic foot care but only 58.7% had good practice about diabetic foot care. Mean (SD) for knowledge score was 11.3 (2.40) and 22.1 (4.39) for practice. The good practice of diabetic foot care has significant statistical association with sex ($p=0.014$), race ($p=0.028$) and level of knowledge of diabetic foot care ($p<0.001$).

Conclusion: The level of knowledge and practice regarding diabetic foot care still under optimized among diabetic patients that attending outpatient clinics in Kuala Terengganu. Therefore, further action needed to emphasize the importance of good diabetic foot care practice as a preventive measure to reduce the disease burden to the patients and healthcare system.

Poster Abstract 56

Acceleration of wound healing with Dermacyn® Wound care solution and Zorflex® carbon dressing in diabetic foot ulcer

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Introduction: To demonstrate accelerated healing with usage of Dermacyn® and Zorflex® carbon dressing.

Methods: Dermacyn® cleansing solution was used to cleanse the diabetic foot ulcer on the right foot at the base of the Ray's amputation of the 2nd,3rd and 4th toes. Extensive mechanical debridement was done and the primary dressing that was used was Zorflex® carbon dressing for 4 weeks.

Results: Patient was diagnosed with Type II DM 10 years ago but had defaulted treatment. Patient's diabetic ulcer was treated while managing his diabetes with oral anti-diabetic agents and insulin. After 4 weeks of applying Dermacyn® and Zorflex®, wound successfully progressed to complete closure.

Conclusion: Dermacyn® is an effective cleansing solution for wounds and is readily available. Zorflex® has a significant role as a primary dressing in chronic and infected diabetic foot ulcers. It's antimicrobial properties shortens the healing process and improves patient outcome.

Poster Abstract 57

Prevalence and the associated factors of lipohypertrophy in insulin-treated Type 2 diabetes patients in Malaysian primary care

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Introduction: Lipohypertrophy is a common complication at insulin-injection sites. The objective of this study was to determine the prevalence of lipohypertrophy and its associated factors in insulin-injected diabetic patients at selected primary care clinics.

Method: This cross-sectional study was conducted on adults aged ≥ 18 years old with underlying diabetes who had been treated with insulin for at least six months. The study was conducted at six public primary care clinics. This study used the combination of Injection Technique Questionnaire and physical examination to detect the presence of lipohypertrophy. Data was analyzed with univariate and multivariate logistic regression using IBM SPSS statistical software version 26.

Results: The study respondents consisted of 506 type 2 diabetes patients; 60.6% were females and 48.3% were of Malay ethnicity. The prevalence of lipohypertrophy in our study was 39.6% (95% CI 35-44%). Univariate analysis identified these statistically significant associated factors of lipohypertrophy: higher number of injections per day, longer needle length, repeated use of needle, incorrect rotation of injection site, longer insulin use duration, larger total insulin dose, and higher HbA1c values. In multivariate logistic regression, incorrect rotation of injection was the only independent associated factor of lipohypertrophy.

Conclusion: The prevalence of lipohypertrophy in this study

was comparable with other studies. Identified associated factors of lipohypertrophy need to be addressed in on-going health education for insulin-treated patients in Malaysian primary care clinics. Education to the health care professionals as well as awareness of diabetes patients are important steps in preventing this complication.

Poster Abstract 58

The views and experiences of primary care doctors in managing children with learning disabilities

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Introduction: Learning disabilities (LD) affects about 5% of school-age children. In Malaysia, the Social Welfare Department (SWD) reported that 143,334 individuals who registered as learning disabilities were accounted for about 35% of total disabilities in year 2016. 5 -10% of LD were school-age children, and boys are more commonly affected compared to girls. Every year, according to the national statistics, the number of cases of LD increases. Primary care providers play an important role in LD management. As the frontliner, the responsibilities include in identification of LD, management of LD and its co-occurring conditions. As well as coordinating with multidisciplinary teams and to assist in offering resources to families about community services. Also, in advocating for child's rights and needs at school, as mediator between family and school team and as a consultant and resource to the school. However, to date, there are limited studies or reports on the experiences of health care personnel in managing children with LD. This study allows researcher to explore and evaluate the current practice of primary care doctors in the management of children with LD.

Objectives: To explore the views and experiences of primary care doctors in managing children with LD, as well as to explore the barriers and facilitators and the ways to improve the management of children with LD in primary care setting.

Methods: A qualitative study was conducted among 23 primary care doctors by purposive sampling who had experience in managing children with special needs in the district of Klang by focus group discussion (FGD) using a semi-structured topic guide. A total of seven FGDs were conducted, where data saturation achieved at 5th FGD. Thematic analysis was used for data analysis after completion of coding using QDA Miner Lite 4.0 software.

Results: There were multiple challenges and good practices identified when dealing with LD management in children. Finally, three main themes emerged from data. There are experiences of health care provider in the detection of children with LD, challenges faced by health care providers when managing children with LD and suggestions to facilitate the management of LD at different levels. Whereby, multidisciplinary team (MDT) intervention is an important and beneficial practice in managing children with LD.

Conclusion: Future implementation of new policy with

the collaboration of Ministry of Health and Ministry of Education is mandatory for better practice and outcomes

Poster Abstract FPP59

A preliminary audit of post COVID cases presenting to a primary care clinic of a university hospital

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Introduction: The primary care medicine clinic sees a variety of clinical cases daily, including infections such as COVID-19 which can cause significant acute symptoms as well as repercussions beyond 12 weeks after infection, lasting for months in some cases. Long COVID (or post COVID-19) is defined as symptoms and signs that develop during or after a COVID-19 infection, persisting beyond 12 weeks. Acute COVID symptoms can last up to 4 weeks and ongoing symptomatic COVID lasts between 4 and 12 weeks. The most frequently reported symptoms are fatigue, breathlessness, cognitive impairment, insomnia, anxiety as well as depression which can impair activities of daily living and function. Patients who are admitted to the hospital are given follow up at the multidisciplinary clinic (MDT) where patients will be monitored for complications post-COVID. However, a large number of patients undergo quarantine at home (Categories 1 and 2) and it is estimated that between 10-35% of COVID-19 patients will develop long COVID.

Methods: Descriptive, retrospective cohort (tracing patient's electronic medical records from June to September 2021)

Results: 71 patients presented after COVID-19 infection at a mean±SD age of (49.44± 16.81) years with 45 (63.4%) of patients consisting of women. Many had co-morbidities such as diabetes mellitus (33.8%) and hypertension (28.2%). 30% of patients were vaccinated with at least one dose and most patients fell within Category 2. Symptoms post-COVID-19 ranged from fever (46.5%) to fatigue (5.6%). Patients with severe COVID were more likely to develop myalgia post COVID (OR=8.166, p= 0.027, CI 1.273 – 52.363).

Conclusion: Patients with severe COVID appear to be at higher risk of developing post-COVID symptoms although more research is needed to further study this.

Poster Abstract FPP60

Primary care doctors' communication skills: A survey of Malaysian family physicians in training

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Introduction: The aims of the study were to assess Family Physician trainees' perception of their own communication skills and to evaluate the effectiveness of a two-day

communication skill workshop in improving their communication skills.

Methods: This was a non-randomized interventional study. This two-part study comprised an online assessment, via a previously validated questionnaire, of self-perceived communication skills of a cohort of Family Physicians in training before and six months after a structured communication skills training programme. A control group was used of Family Physicians not undergoing communication skills training.

Results: Of 384 respondents, 73.7% were in the age range 25-34, 75.8% were female, 52.1% were Malay and 82% worked for the Ministry of Health. Prior to the workshop, the means score for all communication skills components were high and above 4.000, indicating good communication skills among Family Physician trainees. Among 81 respondents who completed the questionnaire at both pre-and post-workshop, the score means before and after communication workshop were statistically different in terms of conveying information and education (4.206 to 4.344) ($p=0.006$), communication in complex situation (4.269 to 4.441) ($p=0.007$), breaking bad news (4.151 to 4.304) ($p=0.013$) as well as team dynamics communication (4.356 to 4.506) ($p=0.001$). When compared with the 76 respondents from the control group, the results indicated an overall higher means of communication skills score for the case group, particularly in conveying information and education.

Conclusion: A structured workshop for Malaysian Family Physicians in training is effective in improving communication skills.

Poster Abstract 61

Sharing Experiences - Art therapy program to explore mental well-being of healthcare workers

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Introduction: Pandemic Covid-19 can have negative impact on mental health of healthcare workers (HCW). Often, many were unaware of the problem while the others too busy or reluctant to seek help. This cause late detection and more severe cases attended. Thus, we want to assess early in order to improve our HCW's mental well-being. The use of art therapy feature ability to access and explore of mental well-being that difficult using verbal approaches.

Methods: The program was done in May-June 2022. 34 HCW from different profession and grades in a clinic in Kuching, Sarawak were invited to participate in a 2 hours session of art therapy in groups of 10-12. Each person would be given pencil colours, pen and papers. They would be guided to draw whatever pictures related to current issues connected to self. Towards middle of the session, participants would be asked to share on the drawings.

Results: All participants shared their piece of work. 4 participants were noted to have serious issues that need to be further discussed and explored by the psychologists and medical officers. Participants gave feedback as well that they're able to engaged in art-making and many shared relief at ability to express their emotions.

Conclusion: The Art Therapy program could be used to assess mental well-being of HCW especially those hesitate to talk. Although further research is needed to establish specific approaches most beneficial to achieve the objective.

Poster Abstract FPP62

Asthma control and unscheduled care during the Hajj among Malaysian Hajj pilgrims: A descriptive observational study

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Introduction: Asthma exacerbations are among the commonest reasons for hospital admissions in Malaysian pilgrims during the Hajj. The aim of this study was to determine asthma control, incidence of unscheduled care and associations between them among Malaysian pilgrims attending the Hajj.

Methods: We administered questionnaires face-to-face to pilgrims with self-reported asthma who attended one of 14 primary care clinics pre-Hajj and conducted a telephone survey on the same group of pilgrims within three months post-Hajj. Data on sociodemography, asthma control (GINA questionnaire), unscheduled care attendances and hospitalisation due to asthma during pilgrimage were obtained.

Results: We surveyed 105 pilgrims with asthma pre-Hajj; 90 participated post-Hajj. Pre-Hajj, 33(31.4%) had poorly controlled (partly or uncontrolled) asthma; 63(60%) were not using preventer in the last 12 months; 71(67.7%) had no regular follow up, and 94(89.5%) had no asthma action plan provided. During Hajj, 58(64.4%) had poorly controlled asthma ($p<0.001$), 29(32.2%) had an attack ($p=0.018$) and 34(37.8%) had unscheduled outpatient visits for asthma related event (mean 1.5; range 1-4); 3 were hospitalized, none required assisted ventilation due to asthma. One pilgrim passed away due to non-asthma related cause.

Conclusion: This group of Malaysian pilgrims with asthma, had a substantial adverse health risk and healthcare utilisation during the pilgrimage. Addressing this risk is a priority.

Poster Abstract 63**Lifestyle habits of individuals with clinically diagnosed familial hypercholesterolaemia in primary care**

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Introduction: Being physically active and practising healthy diet are vital lifestyle habits to reduce the risk of premature cardiovascular disease (CVD) in individuals with familial hypercholesterolaemia (FH). The aim of this study was to determine the physical activity levels and dietary habits of individuals who were clinically diagnosed with FH.

Methods: This cross-sectional study was conducted in 7 primary care clinics in Klang Valley from September 2020 – December 2021. Patients who were clinically diagnosed with FH were invited to participate. The Malaysian Adult Nutrition Survey (MANS) questionnaire was administered. Being physically active was defined based on the Malaysian Dietary Guidelines (MDG) of performing moderate intensity physical activity of ≥ 150 minutes/week or performing vigorous-intensity physical activity of ≥ 75 minutes/week or an equal combination. Practising healthy diet was defined as eating at least 3 servings of vegetables and 2 servings of fruits daily and drinking 6–8 glasses of plain water daily and taking ≤ 2 servings of trans-fat per week.

Results: A total of 177 patients were recruited. The mean age was 46.6 years (± 9.93). Of this, 94 (53.1%) were physically active. However, only 12 (6.8%) practised healthy diet. Of those who were physically active, majority were Malays (72.3%), married (79.8%), have tertiary education (61.7%) and worked full-time (60.7%). Among those who were practising healthy diet, majority were Malays (50%), married (100%), have tertiary education (58.3%) and worked full-time (75%).

Conclusion: A good proportion of patients with FH were physically active. However, the proportion of those practising healthy diet was very low. Primary care providers should incorporate lifestyle intervention when managing patients with FH to reduce premature CVD.

Poster Abstract 64**Women's Beliefs And Experiences Regarding Exercise During Pregnancy: A Qualitative Study In Primary Care Centre In Klang, Malaysia**

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Introduction: Exercise during pregnancy has proven to be beneficial not only to pregnant mothers but also to the foetuses. However, only small numbers of pregnant women adhere to the recommendation of exercise during pregnancy. Limited data are available in Malaysia regarding women's beliefs and their experiences regarding this topic. The aim of this study is to explore beliefs and experiences regarding exercise during pregnancy among women in an urban city of Malaysia and also to explore barriers and facilitators towards participating in exercise during pregnancy.

Methods: This study had a qualitative design using semi-structured interviews developed based on Theory of Planned Behaviour. Seven focus-group discussions (FGD) involving 26 women were conducted in a government health clinic in Klang, Selangor. The interviews were audio-recorded, transcribed verbatim and checked for accuracy. Data was managed using computer software QDA Miner Lite and was analysed using inductive thematic analysis.

Results: Four main themes emerged from this study; women's understanding of exercise during pregnancy varies; impact of exercise to both mothers and babies varies; learning about exercise during pregnancy through various resources and challenges in engaging with exercise during pregnancy.

Conclusion: This study highlighted that exercise during pregnancy is a topic that needs more emphasises from all angle. This study finding gives an insight for future practice and strategies to empower women to exercise during pregnancy.

Poster Abstract 65**Cross-sectional study of burden of interfacility transfer from primary healthcare centers to Emergency Department Hospital Tuanku Ja'afar, Seremban: Priority comes first**

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Introduction: This study aim to explore the burden of interfacility transfer from primary healthcare clinics to the hospital. This study demonstrated the categories of priority dispatch and measure the difference of priority dispatch categories before and after the transfers. For every transfer, emergency call dispatchers will receive the call and then assigned them into 4 categories of priority dispatch which are P1, P2, P3, and P4 from most urgent to least urgent cases. Based on the priority dispatch assigned, different units of ambulance crew responders will be deployed.

Methods: This was a cross-sectional study conducted in Emergency & Trauma Department of Hospital Tuanku Ja'afar, Negeri Sembilan. This data was collected from official records namely Pre-Hospital Response document. The dispatchers will fill up the document before the transfer and responders will complete the document after the transfer. Data was analysed using IBM SPSS software version 27.0. The measure of agreement (kappa) was used to calculate the agreement between dispatcher and responders on priority dispatch categories assigned before and after the transfer.

Results: This study recorded total of 173 interfacility transfers.

The patients made up predominantly of female (53.2%) and most of the patients were from Malay ethnicity (65.3%). Mean age of patient was 39 years old (SD=24 years). The mean ambulance response time was 36 minutes (SD=22 minutes). The transfer mainly from lower priority dispatch categories of P3 (43.4%) and P4 (22.5%). Measure agreement of Kappa between dispatchers and responders about priority dispatch categories was 0.845. It means significant substantial agreement between the two raters.

Conclusion: Most of transfers made up of lower priority which means the patients were stable and in need of the transport without medical care. From the findings, we could suggest to use patient transport vehicle instead of ambulance to transfer patients with lower priority, thus optimising the use of ambulance and trained-medical staff.

Poster Abstract 66

Knowledge on childhood autism among primary care doctors

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Introduction: The prevalence of autism spectrum disorder (ASD) is increasing. Early intervention can reduce complications. However, late diagnosis is the main barrier to early intervention, which is associated with poor knowledge on ASD among doctors. We aimed to determine primary care doctors' knowledge on childhood autism.

Methods: A cross sectional study was conducted on all primary care doctors working in public health clinics in Kuala Lumpur, Petaling and Klang Districts. A self-administered questionnaire was used, which consisted of questions on demography, knowledge on DSM-5 diagnostic criteria of autism and general knowledge on childhood autism. Good knowledge of DSM-5 diagnostic criteria is defined as correctly identified two true and three false statements of the criteria. Logistic regressions were performed to identify possible factors associated with good knowledge of diagnostic criteria.

Results: A total of 458 out of 575 doctors invited participated (response rate 79.7%). Of these, 102 (22.3%) doctors had never heard of the DSM-5 diagnostic criteria of autism, only 28 (6.1%) had good knowledge of DSM-5 diagnostic criteria. More than 70% doctors were knowledgeable in clinical features, screening programme, and intervention for management of autism. Using multivariate regression, place of work and job position were significantly associated with good knowledge of the diagnostic criteria.

Conclusion: Most primary care doctors could recognize features, screening and management of autism but were poor at the autism DSM-5 diagnostic criteria. Primary care doctors need to be aware of the diagnostic criteria of autism to reduce misdiagnosis and a delay in management.

Poster Abstract 67

Predictors for development of diabetes complications among controlled individualized HbA1c in Type 2 Diabetes Mellitus patients: A case – control study

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Introduction: Diabetes mellitus is a chronic metabolic disorder that can be complicated with microvascular and macrovascular complications. The aim of management of diabetes is to achieve good control of glucose thus to prevent and delay diabetic complications. This study aimed to study the predictors for diabetes complication development among controlled individualized HbA1c in Type 2 Diabetes Mellitus (T2DM) patients.

Methods: A case-control study using preexisting local diabetes data registry involving 30 T2DM patients with complications (cases) and 30 T2DM patients without complication (control) who had achieved controlled individualized HbA1c level. Associated factors for the development of diabetes complications were analyzed using multiple logistic regression analysis.

Results: Out of 30 T2DM patients with complication, it was observed more patients developed microvascular complications such as nephropathy (73%) and retinopathy (33.3%) as compared to macrovascular complications such as ischemic heart disease (13.3%) and cerebrovascular accident (3.3%). Despite having controlled individualized HbA1c, diabetes duration of more than 10 years is associated with higher odd to develop diabetes complication (adj OR = 0.117, 95% CI = 0.02, 0.61, p = 0.011).

Conclusion: Among T2DM patients achieving controlled individualized HbA1c, having diabetes mellitus for more than 10 years is associated with development of diabetes complications.

Poster Abstract 68

Women with diabetes mellitus: what influences their family planning practices - a scoping review

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Introduction: Family planning is one of the vital components in pre-pregnancy care (PPC) among women with diabetes mellitus to avoid unintended pregnancies as the uncontrolled disease is associated with higher perinatal morbidity and mortality. This scoping review is aimed to map the evidence and identify knowledge gaps related to family planning behaviours among women with diabetes mellitus.

Methods: This scoping review is guided by the methodological

framework and Prisma-ScR checklist. PubMed, EBSCO and OVID were searched using the search terms “family planning”, “contraceptive” and “diabetes mellitus”. Empirical research from the year 2000 until February 2022 that is available in English was included.

Results: Thirty-five articles that met the eligibility criteria included 33 quantitative studies, one qualitative study and one mixed-method study. The prevalence and methods of family planning used by women with diabetes mellitus varied across the studies ranging from 4.8 % to 89.8%. Diabetic women were less likely to utilise any family planning methods compared to women without diabetes mellitus. The evidence on family planning behaviours among women with diabetes mellitus is limited to sociodemographic factors only. Age, ethnicity, marital status and education attainment were the commonly reported factors that influence family planning behaviours among this population.

Conclusion: There is a limited exploration on clinical and contextual factors including disease optimisation status, pregnancy intention and other extra-personal factors such as cultural or health-system factors which are needed to guide the strengthening of family planning services for high-risk women specifically diabetic women.

Poster Abstract 69

Hand-grip strength, and erectile dysfunction among men with Metabolic Syndrome attending an institutional primary care clinic in Malaysia: a cross sectional study

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Introduction: Erectile dysfunction (ED) is an independent predictor for cardiovascular diseases (CVD). The prevalence increases with age, but little is known about the relationship between hand-grip strength (HGS) and ED especially among men with high risk of CVD. This study aimed to determine the prevalence of ED among men aged ≥ 40 years with Metabolic Syndrome (MetS) and its association with HGS.

Methods: A cross-sectional study at an institutional primary care clinic in Malaysia was conducted between June 2021 and October 2021. HGS and erectile function were assessed using a hand dynamometer and International Index of Erectile Function (IIEF-5) questionnaire, respectively. Multiple logistic regression analysis was done to determine the association between sociodemographic, clinical characteristics, and HGS with ED.

Results: A total of 334 participants were recruited. The prevalence of ED was 79% (95% confidence interval [CI]: 0.75-0.84). ED was associated with elderly aged ≥ 60 years (odds ratio [OR] 3.27, 95% CI: 1.60-6.69), low HGS (OR 15.34, 95% CI: 5.64-41.81) and high total cholesterol (OR 0.36, 95% CI: 0.16-0.78).

Conclusion: In conclusion, elderly above 60 years and having low HGS are at higher risk of ED. Thus, robust screening of ED among men with Mets and improving muscle strength and physical fitness may be warranted.

Poster Abstract FPP70

Assessing stages and processes of change for self-weight management among doctors working in University Malaya Medical Centre

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Introduction: Doctors often act as role models to patients in weight management; however, they are not immune to being overweight and obese. Hence, it is important to know doctors' readiness to manage their own weight. The aim of this study is to assess the stages of change for self-weight management among doctors and to determine the sociodemographic factors that are associated with it.

Methods: This is a cross sectional study conducted from March to April 2021 among doctors working in University Malaya Medical Centre via online questionnaire.

Results: A total of 201 doctors participated in this study and there were 50.7% doctors who are overweight and 21.4% obese. Most doctors are in the action (27.9%) and maintenance (31.8%) stage. Sociodemographic factors that are associated with the stages of change include gender ($p=0.029$), BMI category ($p=0.001$), department ($p=0.004$), the number of overweight/obese patients seen per week ($p=0.022$), exercise ($p<0.001$), duration of exercise in a week ($p<0.001$) and smartphone fitness application usage ($p<0.001$). Logistic regression was performed and duration of exercise in a week (OR 1.009, $p=0.002$) and smartphone fitness application usage (OR 4.126, $p=0.003$) was found likely to predict readiness to change.

Conclusion: More than half of the study participants are either overweight or obese and most are ready to adopt a healthy lifestyle to manage their personal weight. Several factors such as exercise and the use of smartphone fitness application associated with the stages of change should be encouraged.

Poster Abstract FPP71

Knowledge, attitudes, practices to smoking cessation counseling among primary care doctors in Klang Valley

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Introduction: The prevalence of smoking in Malaysia is still high despite various programs implemented to mitigate the issue. Primary care doctors play a vital role in smoking

cessation program. To date, there is no study looking at the impact of primary physicians' training on knowledge, attitude and knowledge towards smoking cessation counseling. This study aims to assess knowledge, attitudes and practices to effective smoking cessation counseling amongst primary care doctors in Klang Valley, Malaysia.

Methods: A cross-sectional study was conducted among primary care doctors in public health clinics around Klang Valley, Malaysia. The Smoking Knowledge, Attitudes, and Practices (S-KAP) questionnaire was used. This questionnaire was adapted to suit the local primary care setting and modified with permission, later followed by content and face validation. 230 respondents (response rate 72%) from various public health clinics in Klang Valley completed the modified questionnaire.

Results: There were statistically significant associations between training in smoking cessation counselling and doctor's knowledge and practice. Additionally, knowledge can favourably influence practice in smoking cessation counselling.

Conclusion: Training in smoking cessation counselling has a positive impact on primary care doctors' knowledge. The improvement of doctors' knowledge eventually improves practices of smoking cessation counselling. Thus, it is prudent to increase training rate among doctors to improve smoking cessation rates in primary care.

Poster Abstract 72

Urine and the bone affair in young hypertensive female, a case report

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Introduction: Lipomyelomeningocele is a congenital close spinal dysraphism and is a rare cause of recurrent UTI in adult.

Case report: A 22 years old single lady, referred from emergency department for recurrent UTI, elevated BP and renal impairment. During review, patient gave history of urinary incontinence, incomplete voiding and constipation for the past 2 years with swelling at the lower back since birth. There were no history of limb weakness or numbness. Per abdominally a distended bladder was palpable. There was a huge lipoma at the lower back measuring 18x22 cm in size. There was no skin dimple or tuft of hair present. Other systems examinations were unremarkable. BP were between 165/101 to 182/115 mmHg. Repeat renal profile showed increased creatinine level (168 $\mu\text{mol/L}$, eGFR 36.8mL/min). Bedside KUB ultrasound revealed bilateral gross hydronephrosis with normal cortical thickness, distended and thickened bladder wall. Post void KUB ultrasound showed high residual volume (412mls). A lumbar-sacral x-rays revealed posterior vertebral arch defect over L5 vertebral spine. The patient was managed as neurogenic bladder secondary to spinal dysraphism. Antihypertensive medication was started and she was taught to do clean intermittent catheterisation (CIC) of urinary bladder. After three months of CIC, her renal function and

BP normalized. Follow up KUB ultrasound showed absence of hydronephrosis and minimal post void urine. She was referred for multidisciplinary team management at tertiary hospital where MRI lumbosacral spine confirmed presence of L4/L5 spinal dysraphism with lipomyelomeningocele.

Conclusion: This case illustrates the importance of taking a relevant history and doing targeted physical examination in order to narrow down the differential diagnosis. Detection of obstructive uropathy by ultrasound greatly improved patient's management and prevent further kidney damage.

Poster Abstract 73

An Update on the Primary Health Care Vital Signs Profile for Malaysia

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Introduction: Primary Health Care (PHC) Vital Signs Profile (VSP) is a tool designed to assist countries to measure PHC performance and highlights the strengths and challenges. Malaysia is one of the trailblazer countries that presented her initial findings on three domains of financing, performance and equity during the World Health Assembly in 2018. In 2019, a study was done to measure the fourth domain on capacity thus completing the VSP for Malaysia.

Methods: This was a mixed method multi-country design study and conducted in two phases. The first phase, a quantitative study conducted in 2018 where secondary data from multiple national and international sources was used to populate the three pillars of financing, performance, and equity. The second phase begun in 2019, was a mixed method approach to assess functional capacity on (i) governance and leadership (ii) population health needs (iii) inputs (iv) population health management and (v) facility organisation and management.

Results: The capacity of the PHC system in Malaysia was strong in the three subdomains of governance & leadership, information system and funds management but with low scores in two subdomains of drugs & supplies and facility organisation & management. Malaysia PHC access index is 98%, quality index 84% and service coverage index is 62%. It was equitable with little difference in the coverage of Reproductive Maternal Neonatal and Child Health services by mother's level of education and under-five mortality between urban and rural.

Conclusion: The VSP is the initial step in measuring the PHC system. The framework has demonstrated the importance of taking the system approach in strengthening Malaysian PHC and aligning the public and private primary health care delivery systems.

Poster Abstract 74**Dietary Habits and Practices among Anemic Pregnant Mother in Labuan.**

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Introduction: Anemia is a global public health problem that affects people of all ages especially among women in their reproductive age (15-49 years). This study aimed to assess the knowledge on anemia, dietary habits and practices among pregnant mothers.

Methods: A retrospective cross-sectional audit was conducted at 12 government health clinics in Labuan from January to November 2021. A total of 60 mothers who had < 11 g/dL aged between 16 and 39 years old were purposively sampled. The audit format and questionnaire were adapted from the Implementation Manual of the Quality Assurance Program by the Ministry of Health Malaysia.

Results: Only 33 mothers (55%) completed the questionnaire. The mean age of the pregnant mothers was 29.2 years old (SD ±5.41). The majority (87%) of the mothers knew the effects of anemia on mothers' and newborns' health. The knowledge on foods which were higher in iron varies with meat (60.6%), vegetables (24.2%), nuts (12.1%) and fish (3.0%) respectively. Most of the mothers (81.8%) were aware that the intake of tea and coffee interfered with the body's absorption of iron. Despite that, 45% consumed tea and coffee during main meal time while only 17.0% of mothers consumed fruit juice. More than half of the mothers (54.5%) who did not take tea and coffee, forgot to take iron tablets at least once to twice a week.

Conclusion: The findings of this study showed that mothers had an overall good knowledge on the effect of anemia and dietary practice to prevent anemia during pregnancy. However, the knowledge was not being practiced all the time by the mothers. Therefore, more effective nutrition education needs to be carried out for mothers to know and practice to prevent anemia among pregnant mothers.

Poster Abstract 75**The adverse effects of COVID-19 vaccination and its determinants among adult vaccinees in Kuala Terengganu**

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Introduction: This study aimed to determine prevalence of adverse effects (AEs) after COVID-19 vaccination and its determinants.

Methods: This cross-sectional study examined the prevalence of self-reported AEs of COVID-19 vaccination (BNT162b2 mRNA vaccine) and its determinants within 7 days of vaccination among 379 adult vaccinees who received second dose in September 2021 at public vaccination center in Terengganu. The questionnaire consists of sociodemographic information, comorbidities, allergy history, history of COVID-19 infection, AEs post-vaccination and duration to recovery. Logistic regression analyses were conducted using IBM SPSS ver. 26.0.

Results: Majority of participants were 18 to 39 years old (n=307; 81%) and male (n=224; 59.1%). 43 (11.3%) participants had at least one comorbidity and 28 (7.4%) participants had history of COVID-19 infection prior to vaccination. 213 (56.2%) participants had mild adverse effects, and 16 (4.2%) reported to have severe adverse effects. Local pain (n=139; 36.7%), fever (n=91; 24%) and headache (n=61; 16.1%) were the commonest reported AEs. The mean days of recovery were 1.21 days (sd=1.41). The commonest severe AEs reported was dyspnea (n=4; 1.1%). From the logistic regression, female had 2.06 times the odds of having side effects as compared to male (adj OR=2.06; 95% CI (1.32,3.22), p = 0.001). Those without history of COVID-19 infection were more likely to have side effects, as compared to those with COVID-19 infection (adj OR=3.50; 95% CI (1.52,8.84), p = 0.005).

Conclusion: Our study provides the real-life safety of the COVID-19 vaccination (BNT162b2 mRNA vaccine) in our community even among those with previous COVID-19 infection.

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