

# Malaysian Family Physician

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Official Journal of the Academy of Family Physicians of Malaysia  
and Family Medicine Specialist Association of Malaysia



From Preconception  
to Beyond Life's End

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# 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.

Starting from January 2023, the MFP is adopting continuous publication as soon as each article is ready for publication. This is to ensure knowledge is disseminated in a timely manner.

**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:**

**Professor Dr. Ping Yein Lee**

The Editor

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## Publication Ethics

**Ethics:** Evidence of ethics approval from a recognised ethics committee and informed consent should be included in the manuscript for studies involving animal experiments or human participants. When manuscripts describe studies with vulnerable populations (refer ICH-GCP guideline) and there is a risk of coercion or incomplete consent, the manuscript will undergo further evaluation by an internal editorial oversight committee (Chief Editor, Deputy Chief Editor and Editorial Advisors). Consent is necessary for all personally identifiable data, encompassing biomedical, clinical, and biometric information. If requested, documentary proof of consent must be provided.

**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.

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Authorship credit should be based only on:

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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.
7. When preparing your manuscript, please follow the Uniform Requirements for Manuscripts Submitted to Biomedical Journals recommended by the International Committee of Medical Journal Editors (<http://www.icmje.org/icmje-recommendations.pdf>).
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## 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.
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8. **Acknowledgements:** Acknowledge the people who have contributed significantly to the study (but do not qualify for authorship).
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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:

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3. **Keywords:** 3-5 keywords, preferably MeSH terms.
4. **Introduction:** Describe the topic and objective of the review.
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8. **Any relevant subheadings (\*for narrative review):** A narrative review may have any other relevant sub-headings according to needs.
9. **Conclusion:** Provide a conclusion by linking to the objective of the review.
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.
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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.
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4. **Introduction:** Describe the condition and aim of the case report.
5. **Case Presentation:** Describe the case in detail.
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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?
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13. **What is the implication to patients?:** Describe any potential implication to patients based on the learning points from this case report.
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## 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.
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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).
12. **Author contributions:** Describe the contributions of every authors in the study.
13. **Conflicts of interest:** All authors must declare any conflicts of interest.
14. **Funding:** Please state if the work 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.

## 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:

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## Letter to Editor

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7. **Funding:** Please state if the study was funded; if so, by which institution and the funding ID.
8. **References:** Refer to the References section below for more details.

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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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Please use the AMA reference style. Number references consecutively in the order in which they are first mentioned in the text. Identify references in text, tables and legends by Arabic numerals (in superscript). **In AMA style, the reference number goes after a period or comma but before a colon or semicolon.** For indexed journals, the short forms for the journal names can be accessed at the PubMed website (search within Journal Database). Where possible, avoid citing abstracts, personal communication or unpublished data as references. Include among the references manuscripts accepted but not yet published and designate the journal followed by "in press" (in parenthesis). When referencing a website, please include the full title and accessed date. Notice article titles are capitalised in sentence case; book and journal titles are capitalised in title case. Include DOI if available. **Some examples of reference list entries:**

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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.
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    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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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.

Click [HERE](#) to submit your manuscript to our online submission portal. Please also read the Submission and Publication Fees and Peer Review Process and Timeline sections below before submitting your manuscript to us.

## SUBMISSION AND PUBLICATION FEES

MFP is an open access journal and levies **Submission and Publication Fees for original research, review and case report articles starting from 1 Jan 2025**. These fees help ensure the sustainability of the journal’s operations, including copy editing, design and open access costs for the authors’ articles.

All authors are needed to submit a **RM50 Submission Fee** electronically when submitting these types of articles. Payment of the submission fee does not guarantee article acceptance. Therefore, authors should ensure that their article is relevant to primary care/family medicine; contains new important learning points; is methodologically sound; and follows all the formatting requirements before submitting it to our journal. The article will only be processed and reviewed after the payment has been received.

The Publication Fee will be payable once the article is accepted for publication. The fee is based on the categories below:

- Academy of Family Physicians of Malaysia (AFPM) members = RM250
- Malaysian Family Medicine Specialists’ Association (FMSA) members = RM250
- Non-AFPM/FMSA members (Malaysian) = RM450
- Non-AFPM/FMSA members (Non-Malaysian) = RM850

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**All fees are non-refundable.**

Authors who have reviewed manuscripts for MFP within the past one year may enjoy a **waiver of the Submission and Publication Fees**. Only one article is waived for one article reviewed.

For those who are interested in joining the AFPM or FMSA as a member, please visit these websites:

- AFPM: <https://www.afpm.org.my/>
- FMSA: <https://fms-malaysia.org/>

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## POSTER ABSTRACTS

### Poster ID ASC - 1

#### Childhood Immunization Defaulter Rates and Its Associated Factors in Selected Public Health Clinics in Klang Health District

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**Introduction:** Childhood immunization is one of World Health Organizations (WHO) strategies in reducing vaccine preventable disease (VPD). However, there are still existences of unvaccinated children in Malaysia as seen by the rising of VPD. This study aims to determine the childhood immunization defaulter rates (CIDR) in Klang Health District and its associated factors.

**Method:** A cross-sectional study was conducted from July to September 2023 among parents/guardians accompanying children aged 12 to 24 months attending maternal and child at selected health clinics in Klang District. A systematic random sampling was used to recruit participants with an assisted validated questionnaire that includes sociodemographic, immunization and factors contributing. Data were analysed using SPSS version 29 involving two level analysis (descriptive and bivariate analysis).

**Results:** A total of 400 respondents were recruited. The CIDR was found to be 25.5%. MMR second dose (22%) was the highest defaulted, followed by Pneumococcal third dose (16.2%) and MMR first dose (14.2%). In this study, unhealthy children ( $p<0.001$ ) and no transportation ( $p=0.003$ ) were found to be significantly associated with CIDR. Parents, family and other health service factors were not statistically significant.

**Conclusion:** A higher CIDR was found compared to most previous studies. This reflects on the gaps in the existing policies and system. Child's health status and transportation were significantly associated with CIDR. Therefore health care providers should promote more programmes to increase the awareness and knowledge about immunization. Additionally, policy makers should improve the transportation services for accessibility to health care clinics and provide mobile vaccination teams.

**Keywords:** childhood immunization, defaulter rate, children, vaccination, associated factors

### Poster ID ASC - 2

#### Practice Of Smoking Cessation Counselling and Its Associated Factors Among Government Primary Healthcare Workers in Perak: A Cross-Sectional Study

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**Introduction:** Primary healthcare workers are in a strategic position to promote smoking cessation due to their accessibility to the public. Counselling is a cornerstone of smoking cessation programs, complementing pharmacotherapy. This study aimed to determine the practice of smoking cessation counselling among primary healthcare workers and identify its associated factors.

**Method:** A cross-sectional online survey was conducted among 363 primary healthcare workers in all government primary healthcare clinics in the district of Hilir Perak, Kerian, Kinta, Larut, Matang & Selama, and Manjung from January to June 2023. Doctors, allied health professionals, pharmacist, medical assistants, and nurses were included. The knowledge, attitude and practice of smoking cessation counselling were assessed using a validated 22-items questionnaire which covered the components of 5As (ask, advise, assess, assist, arrange) and 5Rs (relevance, risk, reward, roadblocks, repetition). Multiple logistic regression was used to analyze the factors associated with poor practice.

**Results:** Doctors represented 31.1% of the respondents, followed by allied health professionals(21.8%), pharmacists (19.3%), medical assistants (14.3%), and nurses (13.5%). Majority of the respondents showed poor level of practice (93.7%), knowledge (94.8%), and attitude (51.5%). Only a small proportion of respondents (16.8%) were trained in smoking cessation counselling. Multivariate logistic regression analysis revealed that only the district variable was significantly associated with poor smoking cessation counselling practice. Hilir Perak district has the highest odds of having poor practice (aOR=17.80, 95% CI= 2.02-156.97, p-value= 0.01).

**Conclusion:** Smoking cessation counselling practice, knowledge and attitude were poor among primary healthcare workers in Perak's government health clinic. The low rate of formal training underscores the need for targeted interventions. District-specific differences suggest that localized studies should be considered to determine its influential factors.

**Keywords:** smoking cessation, primary healthcare, practice

### Poster ID ASC - 3

#### Review on Triglyceride Glucose Index Ratio and Homa-Insulin Resistance in Relation to Diabetic Diet in Primary Care Settings in Malaysia

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**Introduction:** The triglyceride-glucose (TyG) index and homeostatic model assessment for insulin resistance (HOMA-IR) are valuable markers in evaluating insulin resistance (IR) and metabolic health. In Malaysia, a nation with a high prevalence of diabetes, understanding the relationship between these markers and dietary management in primary care is crucial. This review explores existing studies on the TyG index and HOMA-IR in diabetic patients and their integration into dietary interventions within primary care settings, highlighting the Malaysian context.

Diabetes mellitus remains a critical health concern in Malaysia, with dietary interventions being pivotal for its management. Insulin resistance (IR), a central feature of type 2 diabetes, can be evaluated using the triglyceride-glucose (TyG) index and homeostatic model assessment for insulin resistance (HOMA-IR). The TyG index, derived from fasting triglyceride and glucose levels, is valued for its simplicity and reliability, while HOMA-IR offers a comprehensive measure of IR based on fasting glucose and insulin levels.

**Method:** A systematic review examined five literature was conducted using various prominent research databases with keywords included "Triglyceride Glucose Index," "HOMA-IR," "diabetic diet," "Malaysia," and "primary care" between 2010 and 2024. The TyG index was shown to correlate with diets high in refined carbohydrates and low in fiber, while adherence to low glycemic index (GI) diets, incorporating whole grains, legumes, and vegetables, significantly reduced TyG values. Additionally, foods with a low insulin index (II), such as proteins and fats, improved insulin sensitivity, though Malaysian studies on II remain limited. HOMA-IR demonstrated utility in monitoring IR improvements with dietary modifications, particularly diets rich in monounsaturated fats and low in saturated fats. Combining nutrition counselling with HOMA-IR monitoring enhanced patient compliance and outcomes.

**Discussion:** Despite their potential, barriers such as cost, limited resources, and lack of familiarity among primary care providers hinder the widespread use of these indices. Training and government support are essential for integrating these tools into routine practice.

**Conclusion:** The TyG index and HOMA-IR are effective for evaluating dietary interventions in Malaysian diabetic patients. Future research should prioritize longitudinal studies and standardized protocols to improve integration into primary care, ultimately enhancing patient outcomes and reducing the diabetes burden in Malaysia.

**Keywords:** triglyceride-glucose index ratio, HOMA-insulin resistance, diabetes mellitus, primary care

### Poster ID ASC - 4

#### Outcomes of Children with History of Maternal Diabetes in Pregnancy in Kuantan, Pahang

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**Introduction:** Prevalence of diabetes in pregnancy in Malaysia is increasing and it is associated with adverse outcomes. While maternal complications are well studied, there are limited data on fetal outcomes. This study aims to identify the the outcomes of children exposed to maternal diabetes in Kuantan.

**Method:** A study was conducted in 2024 involving 200 children aged 18 to 60 months whose mothers had diabetes during pregnancy. The children were purposely selected from eleven health clinics in Kuantan, Pahang. Researchers gathered information about the children's health history from the BRKK and perinatal data from the mothers' antenatal records. The data was analyzed using SPSS v27.

**Results:** The mean age of the children is 25.01 + 10.41 months, with majority (52%) being boys, and 94% are Malays. The mean birth weight is 3.10 + 0.40 kg, with a small percentage (5.5%) classified as macrosomic or with low birth weight. For neonatal complications: low Apgar scores at 5 minutes is 0%, neonatal hypoglycemia at 3%, respiratory distress syndrome (RDS) at 1.5%, and neonatal jaundice at 20%. For late complications: 6.5% of children have developmental delays and 0.5% have abnormal M-CHAT. The mean BMI of the children is 15.44 + 1.63 kg/m<sup>2</sup> with 8.5% are categorized as overweight. Regarding maternal diabetes: 94% of the mothers had gestational diabetes, with most (93%) being controlled and 29.5% being treated with pharmacotherapy. The mean HbA1c is 5.37 + 0.91%.

**Conclusion:** The data illustrates low incidence of adverse outcomes among study population with a relatively good control of maternal diabetes while highlighting areas of concern, particularly in neonatal jaundice and developmental delays.

**Keywords:** fetal outcomes, maternal diabetes

### Poster ID ASC - 5

#### Knowledge and Practice of Screening Testosterone Deficiency Syndrome Among Primary Care Practitioners in Melaka Tengah District

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**Introduction:** Testosterone Deficiency Syndrome (TDS) is gaining recognition worldwide. This complex condition should be screened and treated earlier as it may impact the cardiometabolic and overall quality of life. Current knowledge and ability to screen TDS among the Primary Care Practitioners (PCP) is still not well explored. This study aims to evaluate the level of knowledge and screening of TDS among PCP in Melaka Tengah District.

**Method:** A cross-sectional study using a self-administered questionnaire assessing knowledge, practice of screening and barrier in managing TDS in the primary care setting was conducted between July to September 2024.

**Results:** The median age of 143 participants was 35 years (IQR 7). 10.5% enrolled Diploma Family Medicine and 13.3% are Family Medicine master trainees. Only 9 (6.3%) had amended continuous medical education (CME) on TDS and 3 (2.1%) underwent rotation in the Men's Health Clinic. Median score of knowledge is 23 (IQR 10.0) out of 44. 48.3% of participants have a low level of knowledge and 4.2% had performed TDS screening. HCP who had amended CME had better knowledge of TDS ( $p = 0.048$ ). Older HCP ( $r=0.193$ ,  $p=0.021$ ) and longer working experience ( $r=0.177$ ,  $p=0.034$ ) correlated with better knowledge score. Additional qualification in Family Medicine ( $p=0.026$ ) and previous CME of TDS attendees ( $p<0.001$ ) showed statistically significant association with TDS screening practices.

**Conclusion:** CME and advancement of primary care training on TDS may improve knowledge and lead to a higher chances of TDS screening among PCP.

**Keyword:** andropause, testosterone, primary health care

#### Poster ID ASC - 6

##### Female Sexual Dysfunction: The Prevalence and Associated Factors Among Primary Care Practitioners In Malaysia

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**Introduction:** Sexual health is integral to quality of life, and female sexual dysfunction (FSD) is a significant public health concern recognized by the World Health Organization (WHO). Its prevalence is rising globally, with limited data amongst primary care practitioners (PCPs). Multifactorial issues such as high work burden in PCPs, coupled with low help seeking behavior contribute to likelihood of FSD and low quality of life. This study aims to determine the prevalence of FSD and its associated factors among PCPs in Malaysia.

**Method:** This cross-sectional study was conducted using self-administered online questionnaire, within six months duration in Malaysia. Data on sociodemographic, marital and clinical characteristics were collected and two validated questionnaires were utilized including the Malay versions of the Female Sexual Function Index (MVFSFI) and the Depression, Anxiety, and Stress Scale (DASS-21). Data analysis included descriptive statistics and logistic regression.

**Results:** The study included 382 participants. The prevalence of FSD was 14.7% (95% CI:11.1, 18.2) among PCPs in Malaysia, and the most affected domain was desire disorder(25.4%). Significant associations were observed between sexual activity  $\leq 2$  times/month [aOR 4.880 (95% CI: 2.522, 9.442;  $p < 0.001$ )], depression [aOR 3.450 (95% CI: 1.653, 7.204;  $p < 0.001$ )] and degree-level education [aOR 2.659 (95% CI: 1.338, 5.285;  $p$ -value = 0.005)] with FSD.

**Conclusion:** This study identified FSD as a prevalent issue among Malaysian PCPs. There were significant associations with reduced sexual activity, depression and educational attainment. The findings highlight the multifaceted biopsychosocial concern, illuminating the need for a holistic approach to FSD.

**Keywords:** female sexual dysfunction, FSD, malay version of female sexual function index, MVFSFI

#### Poster ID ASC - 7

##### Evaluating the Effectiveness of Community-Based Comprehensive Intervention Bundle on Safe Motherhood Among Pregnant Women in Kangar Health Clinic, Perlis

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**Introduction:** Despite significant progress in maternal health worldwide, persistent gaps and disparities continue to pose challenges in which, for the case in Perlis, there was increasing prevalence of unsafe delivery and reducing antenatal care visit. Knowledge and attitude about safe motherhood practices will reduce pregnancy related health risks and also improve maternal and child health. The aim of study was to measure the effectiveness of comprehensive intervention package on pregnant women's perception regarding safe motherhood.

**Method:** This community-based intervention used a one-group pre-post quasi-experimental design in two villages (population: 4,250). A purposive sample of 262 pregnant women met inclusion criteria. The intervention had three phases, including a reviewed safe motherhood booklet, teachings, and demonstrations. It was conducted in collaboration with the ObGyn Department at Hospital Tunku Fauziah, NGOs, and local leaders. Research took place in an ObGyn clinic and two community halls. Data collection (April–December 2024) covered four domains: sociodemographics and obstetric history, maternal knowledge, attitudes and perceptions (modified Likert scale), and booklet acceptability.

**Results:** Our result revealed that the mean age of studied sample was  $22.8 \pm 6.7$  years. There was improvement with a highly statistically significant difference observed in women's knowledge, attitude and perception regarding all aspect of safe motherhood at post-intervention phase compared with pre-intervention phase ( $p<0.001$ ). There was a significant positive correlation between total knowledge and total attitude regarding safe motherhood at pre and postintervention phase ( $p \leq 0.05$ ).

The feasibility and acceptability of safe motherhood booklet was significant ( $p \leq 0.05$ ). Meanwhile, further benefits included the enhancement of male involvement in safe motherhood issues.

**Conclusion:** The study demonstrated the effectiveness of intervention in enhancing pregnant women's knowledge, attitudes, and perceptions of safe motherhood in Perlis. Future structured educational efforts with community collaboration can improve obstetric care use and reduce maternal and fetal risks.

**Keywords:** safe motherhood, intervention, knowledge and attitude

#### Poster ID ASC - 8

##### **From Birth to Breast: Understanding Breastfeeding Self-Efficacy Among Mothers in Johor Bahru District**

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**Introduction:** Breastfeeding self-efficacy refers to mothers' confidence in their ability to breastfeed, plays a crucial role in sustaining breastfeeding. Despite its significance, research on factors influencing breastfeeding self-efficacy among postpartum mothers in Malaysia remain limited. This study examines the level of breastfeeding self-efficacy and its association with socio-demographic and perinatal factors among postpartum women attending government health clinics in the Johor Bahru district.

**Method:** A cross-sectional study was conducted among 280 postpartum mothers selected via proportional stratified random sampling. The Breastfeeding Self-Efficacy Scale-Short Form (BSES-SF) was used to assess confidence levels. Simple and multiple linear regression analyses identified significant predictors of breastfeeding self-efficacy.

**Results:** A majority of mothers (80.4%;  $n = 225$ ) exhibited high breastfeeding self-efficacy, with an average BSES-SF score of  $57.85 \pm 10.54$ . Higher breastfeeding self-efficacy was significantly associated with older maternal age, Malay ethnicity, multiparity, exclusive breastfeeding and immediate skin-to-skin contact after delivery. Interestingly, neonatal intensive care unit (NICU) admission was positively linked to breastfeeding self-efficacy.

**Conclusion:** Maternal age, ethnicity, parity, types of infant feeding, skin-to-skin contact and NICU admission significantly influence breastfeeding self-efficacy. These findings underscore the need to promote immediate postnatal skin-to-skin contact, address ethnic disparities and provide targeted support for first-time mothers to enhance breastfeeding confidence.

**Keywords:** breastfeeding, self-efficacy, postpartum

#### Poster ID ASC - 9

##### **The Prevalence of Night Eating Syndrome and Its Association With Risk Factors Among Students in Kolej Mara Kuala Nerang**

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**Introduction:** Night Eating Syndrome (NES) is an eating disorder, characterized by recurrent episodes of night eating, morning anorexia and insomnia. This study aimed to determine the prevalence of NES and its association with depression, anxiety, stress, sleep quality and eating disorder among students in Kolej MARA Kuala Nerang (KMKN).

**Method:** A cross sectional study was conducted on 426 students in KMKN. A minimal sample size calculated using OpenEpi was 119 (95% confidence level). Universal sampling method was used and data on sociodemographic, NES, depression, anxiety, stress, sleep quality and eating disorder were collected through online self-reported validated questionnaires, which included Night Eating Questionnaire (NEQ), Depression, Anxiety and Stress Scale (DASS) 21, Pittsburg Sleep Quality Index (PSQI) and Eating Attitude Eat-26. Data was analyzed using IBM SPSS version 22. Chi square was used to test the association between NES and sociodemographic characteristics and risk factors (significant for  $p$  value  $< 0.05$ ).

**Results:** Two hundred and seventy five students responded (55.6% males, 44.4% females) with 50.9% studying in Foundation of Science (FSc) and 49.1% in Foundation of Science and Technology (FIST). The results revealed 10.2% of the students engaged in NES. The majority had mild to severe depression (56.4%) and anxiety (65.5%) with 26.2% stating they were stressed. There was no significant association of NES with gender, age, monthly pocket money and body mass index. A significant number of students with NES were from FIST ( $p = 0.036$ ). Risk factors significantly related to NES were depression ( $p = 0.000$ ), anxiety ( $p = 0.021$ ), stress ( $p = 0.000$ ), poor sleep quality ( $p = 0.001$ ) and risk of eating disorder ( $p = 0.003$ ).

**Conclusion:** NES should be screened among college students at risk, to receive appropriate treatment.

**Keywords:** night eating syndrome, college students

#### Poster ID ASC - 10

##### **Prevalence of Perceived Stress and Its Determinants Among Parents of Preschool Children with Autism Spectrum Disorder (ASD) in Klang Valley**

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**Introduction:** Parents of children with ASD are susceptible to stress-induced illness from managing life-long challenging behaviour in their children. The prevalence, determinants of stress as well as coping strategies adapted by parents of preschool children with ASD were examined.

**Method:** A cross-sectional study conducted among parents of preschool children with ASD at GENIUS Kurnia Putrajaya and Kuala Lumpur using a three-part questionnaire consisting of sociodemographic background, Parental Stress Index-Short Form (PSI-SF) and Brief COPE was used. Using SPSS version 26, determinants of stress were identified by performing multiple logistic regression, and multiple linear regression for coping.

**Results:** A total of 196 parents were recruited with average age of 36.4 ( $\pm 4.37$  SD). Clinically significant stress were seen in 10.2% of them, while 9.7% were highly stressed. These parents have 2.5 times likelihood of stress as child's age increases (OR 2.53, 95% CI 1.422, 4.534). Parents that are less likely to have stress are those with household income more or equal to RM 4,850 (OR 0.32, 95% CI 0.129, 0.824). Coping strategies were influenced by several factors: religion is positively correlated with problem focused ( $\beta$  0.181,  $p = 0.011$ ) and emotion-focused coping ( $\beta$  0.199,  $p = 0.005$ ), while female parents use more emotion-focused coping ( $\beta$  0.158,  $p = 0.025$ ). Employed parents are more likely to engage in problem-focused coping ( $\beta$  0.142,  $p = 0.045$ ) and tertiary education level was negatively correlated with Avoidant coping ( $\beta$  0.178,  $p = 0.014$ ).

**Conclusion:** This study demonstrated that child's age, household income, religion, employment status, education, parent's gender are the factors that influenced parental stress and their coping pattern. Complex interplay between background, stress and coping strategies in managing stress among parents of children with ASD is important to understand in managing parental stress.

**Keywords:** parental stress, autism spectrum disorder, coping strategies

#### Poster ID ASC - 11

##### Empowering Diabetes Care: A Structured Multidisciplinary Approach For Better Glycaemic Control In The Community

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**Introduction:** Diabetes mellitus is a major public health concern, requiring a multidisciplinary approach for effective management. This study evaluates the effectiveness of a structured multidisciplinary diabetes lifestyle program in improving glycaemic control among individuals with Type 2 Diabetes Mellitus (T2DM) in a community setting.

**Method:** A prospective cohort study evaluating effectiveness of structured intervention implemented over four months, targeting 11 participants with HbA1c levels above 8%. The program was divided into four modules: (1) Introduction to Diabetes, (2) Therapeutic Lifestyle Changes (dietary modifications by a dietitian and exercise prescriptions by a physiotherapist),

(3) Diabetes Medication (guided by a pharmacist), and (4) Diabetes Complications (managed by a medical officer). The intervention was conducted at Pusat Aktiviti Warga Emas (PAWE) Pejabat Tanah Kampung Gajah, with monthly sessions lasting approximately four hours. Post-intervention assessments, including HbA1c, weight, BMI, and blood pressure, were conducted three months after program completion.

**Results:** The study demonstrated a significant reduction in HbA1c levels (range 0.2%–4.9%) post-intervention, indicating improved glycaemic control. Secondary outcomes, including weight, BMI, and blood pressure, also showed positive trends. These findings support the effectiveness of a structured multidisciplinary approach in managing T2DM through lifestyle modifications and patient education. Additionally, lifestyle changes influenced the need for medication adjustments, addressing the current challenges related to insulin shortages.

**Conclusion:** This study underscores the potential of structured multidisciplinary diabetes programs in improving metabolic outcomes among patients with poorly controlled T2DM. Community-based interventions integrating education, lifestyle changes, and multidisciplinary support can significantly enhance diabetes management, reducing the need for pharmacological intensification. Further studies with larger sample sizes are recommended to validate these findings and explore long-term sustainability.

**Keywords:** multidisciplinary approach, diabetes care, glycaemic control

#### Poster ID ASC - 12

##### Evaluation of Interfacility Transfer by Primary Care Ambulance Program (PCA) to Reduce the Burden of Acute Emergency Service in Hospital (ATS)

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Negeri Sembilan

**Background:** Prehospital Emergency Medical Services (EMS) in Malaysia face challenges due to inconsistent protocols and limited resources. In Seremban, interfacility transfers are delayed due to ambulance shortages in primary care, burdening hospital services. To address this, the Seremban District Health Office introduced the Interfacility Referral Team to improve primary care ambulance utilization and efficiency. This study was done to evaluate the program in reducing the burden of ATS in Hospital TuanKu Ja'afar Seremban.

**Methods:** This retrospective observational study was conducted by analyzing data collected via 'My ECall' software from the Medical Emergency Coordination Centre (MECC) Hospital TuanKu Ja'afar Seremban database. Data collected from January until April for 2023 and 2024 was selected as pre and post intervention comparison. P-value of  $<0.05$  was considered statistically significant.

**Results:** A final dataset consisting of 925 interfacility ambulance transfer records were analyzed for this study, comparing the usage of the PCA and ATS before and after the program. The dataset included 433 cases from January to April 2023 and 492 cases from January to April 2024. There was a significant reduction in the usage of ATS coverage, from 94.2% in 2023 to 53.3% in 2024. The highest number of cases originated from KK Seremban and facilities located within a 5-10 km radius from the hospital. After the program implementation, the median response time for ATS was significantly faster ( $p=0.03$ ) compared to PCA. However, no significant difference in response time was observed for PCA, highlighting the need to optimize response efficiency, despite improvements in ambulance distribution.

**Conclusion:** The primary care-led interfacility ambulance transfer program improved service distribution in Seremban, reducing reliance on ATS. Despite relatively similar response times, optimizing logistics and prioritization is crucial. Expanding ambulance coverage and enhancing coordination can further improve efficiency, ensuring equitable and effective patient transfers while strengthening emergency medical response.

**Keywords:** ambulances, reaction time, primary health care

#### Poster ID ASC - 13

##### Factors Influencing Proton Pump Inhibitor Prescribing

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**Introduction:** Proton pump inhibitors (PPIs) are widely prescribed for gastrointestinal conditions, making rational prescribing essential for optimizing patient care. This study evaluated the knowledge, attitude, and practice (KAP) of PPI use among primary healthcare providers in the Klang Valley, identifying strengths and areas for improvement.

**Method:** A cross-sectional study was conducted among 350 primary healthcare doctors in the Klang valley, including medical officers (MOs) and family medicine specialists (FMS), using an online questionnaire. The survey examined demographic characteristics, KAP scores, and factors influencing prescribing behaviors. Statistical analyses were performed to determine associations between sociodemographic variables and KAP scores.

**Results:** Among 350 primary healthcare providers, 67.7% prescribed PPIs, yet only 53.6% were aware of guidelines, and 46.0% had attended CME. While 60.3% had good knowledge (median score 11/) and practice (median score , 50.0% had poor attitudes (median score ) Private providers had lower odds of poor practice (AOR = 0.27 Add CL,  $p = 0.029$ ), while pharmacy monitoring was unexpectedly linked to poorer practice (AOR = 3.93,  $p = 0.038$ ). Prescribing PPIs to 5–10 patients weekly was associated with better practice (AOR = 0.07,  $p = 0.018$ ). Self-medication was common (55.3%), with 41.4% reporting persistent symptoms. Omeprazole use correlated with better knowledge (AOR = 0.35, 95% CI 0.13-0.96,  $p=0.042$ ).

**Conclusion:** The findings highlight a strong foundation in PPI knowledge, attitudes, and practices among primary

healthcare doctors in Klang valley. Continuous education initiatives and enhanced pharmacy monitoring could further optimize prescribing behaviors, ensuring safe and effective PPI use. Strengthening these positive trends through targeted interventions may further improve patient safety and healthcare efficiency.

**Keywords:** proton pump inhibitors (PPIs), knowledge, attitude, practice, prescribing patterns, primary healthcare doctors, rational drug use

#### Poster ID ASC - 14

##### Depression and Anxiety: Prevalence And Predictors Among Primary Care Patients: A Cross Sectional Study

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**Introduction:** Depression and anxiety are the most prevalent mental health disorders and have become the leading contributors to the global burden of disease and disability. Early detection and treatment can improve the outcome of these diseases hence, screening for mental health at primary care level is crucial. This study aims to determine the prevalence and predictors of depression and anxiety among primary care attendees in Klang Valley.

**Method:** A cross-sectional study was conducted from January 2023 to December 2024 at two university based primary care clinic in Klang valley. Respondents were chosen by convenience sampling. A self-administered questionnaire that consisted of six sections: socio-demographic profile, underlying medical illness, social support (MOS), and mental health screening (PHQ9 and GAD7) was used. Data was analysed using SPSS 29 software. Descriptive statistics were computed for all variables, whereby the predictors for depression and anxiety were analysed using logistic regression analysis. The level of significance was set at  $p<0.05$ .

**Results:** This study recruited 460 respondents. The prevalence of depression and anxiety among the primary care attendees were 9.6% and 5% respectively. The respondents' mean age was  $47.4\pm 14.3$ . Age and Positive Social Support are the two strongest predictors of the outcome for both depression and anxiety. The higher the age, the more likelihood the patients to develop depression (AOR=1.04(1.02-1.07),  $p=0.002$ ), and anxiety (AOR: 1.07 (1.02-1.11),  $p<0.001$ ). However, the more positive social support the patients had, the more likelihood the patients to develop depression (AOR=1.54(1.08-2.18),  $p=0.015$ ), and anxiety (AOR: 1.70 (1.08-2.67),  $p=0.020$ ).

**Conclusion:** Prevalence of depression and anxiety among primary care patients were 9.6% and 5% and predictors for these were age positive social support. An understanding of the role of

social support in mental health treatment is crucial in primary care, as it can serve as preventive strategies to improve patient outcomes.

**Keywords:** depression, anxiety, primary care, mental health, social support

#### Poster ID ASC - 15

##### **Bridging the Gap: An Audit Evaluation on Asthma and COPD Documentation Practices in Malaysian Primary Care**

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**Introduction:** Clinicians are responsible for meticulous documentation and systematic record keeping. Good documentation practices improve patient care and uphold quality assurance. This audit assessed documentation practices during asthma and COPD clinic consultations.

**Method:** This retrospective descriptive audit examined electronic medical records (EMR) for documentation completeness of asthma and COPD patients attending a university primary healthcare clinic in Selangor, Malaysia from the 1st of January 2020 until the 31st of December 2020. Patients' EMRs meeting inclusion/ exclusion criteria were evaluated using standardised checklists to collect sociodemographic and clinical data, including selected asthma and COPD indicators across three domains: clinical assessment, disease control assessment and disease management. Documentation completeness for each indicator was recorded and marked as "Yes" for documented or "No" for undocumented. Data was analysed using IBM SPSS V26.0.

**Results:** A total of 180 asthma and 15 COPD patients' EMRs were analysed. The asthma cohort had a mean age of 54.46 (SD:18.99), were mostly female (61.7%), Malay (92.8%) and obese (54.9%). The COPD cohort had a mean age of 73.67 (SD: 7.61), were mostly male (80.0%), Malay (73.3%) and overweight (54.5%). In asthma documentation, four indicators achieved > 50%, while the remaining four indicators achieved <50% completion rates. In COPD documentation, four indicators achieved >50%, while seven indicators achieved <50% completion rates.

**Conclusions:** Documentation completion for asthma and COPD care indicators fell below targets. Regular training, feedback and audits are crucial for enhancing documentation, improving care and minimising medicolegal risks. Study limitations include variability in documentation practices and generalizability to a single setting.

**Keywords:** asthma, COPD, documentation

#### Poster ID ASC - 16

##### **Determinants of Influenza and Pertussis Vaccine Acceptance Among Pregnant Women Attending Public Antenatal Care Clinics in the Klang Valley**

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**Introduction:** Maternal immunization protects pregnant women and newborns, yet uptake in Malaysia remains low. This study examines factors influencing influenza and pertussis vaccine acceptance among pregnant women in Klang Valley using the Health Belief Model (HBM), focusing on psychological and socioeconomic determinants.

**Method:** A cross-sectional study was conducted from December 2024 to February 2025 at four public antenatal clinics. Pregnant women completed a self-administered questionnaire in Bahasa Malaysia and English via Google Forms. Data were analyzed using SPSS with descriptive statistics and logistic regression to assess associations between sociodemographic factors, HBM constructs, and vaccine acceptance.

**Results:** Among 233 participants, influenza vaccine acceptance was 54.9%, while pertussis vaccine acceptance was 45.1%. Significant predictors of influenza vaccine acceptance included higher perceived susceptibility ( $p < 0.001$ ), severity ( $p < 0.001$ ), benefits ( $p < 0.001$ ), self-efficacy ( $p = 0.008$ ), cues to action ( $p < 0.001$ ), higher income ( $p = 0.002$ ), and chronic disease ( $p < 0.001$ ). Pertussis vaccine acceptance was significantly associated with higher perceived susceptibility ( $p < 0.001$ ), severity ( $p < 0.001$ ), benefits ( $p < 0.001$ ), self-efficacy ( $p < 0.001$ ), cues to action ( $p < 0.001$ ), chronic disease ( $p = 0.011$ ), antenatal complications ( $p = 0.022$ ), and prior influenza or pertussis vaccination history ( $p < 0.001$ ). A higher perception of susceptibility significantly predicted vaccine acceptance for both influenza ( $p < 0.001$ , OR = 0.491, CI: 0.323 - 0.746) and pertussis ( $p = 0.032$ , OR = 0.518, CI: 0.283 - 0.946), while higher perceived barriers significantly reduced vaccine acceptance for influenza ( $p = 0.003$ , OR = 0.470, CI: 0.287 - 0.767) and pertussis ( $p = 0.038$ , OR = 0.625, CI: 0.401 - 0.975).

**Conclusion:** These findings highlight the importance of addressing perceived susceptibility, self-efficacy, and cues to action while reducing perceived barriers to improve influenza and pertussis vaccine acceptance.

**Keywords:** maternal immunization, health belief model, vaccine acceptance

**Poster ID ASC - 17****Awareness of Stroke Risk Factors, Warning Signs and Health Seeking Behaviour of Stroke Amongst Adults with Cardio-Metabolic Risk Factors Attending Primary Care Clinic in Malacca**

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**Background:** Early identification of stroke warning signs and risk factors may expedite intervention thus improving the clinical outcome. This is especially important in those already with risk factors. The main objective of this study is to assess the awareness of stroke risk factors, warning signs and health seeking behaviour of stroke amongst adults with cardio-metabolic risk factors attending primary care.

**Methods:** This cross-sectional study was conducted in a primary care clinic in Malacca, Malaysia focusing on adults with cardio-metabolic risk factors. A standardized questionnaire that was piloted prior to the study and focuses on warning signs of stroke and risk factors domain was used, whereas health seeking behaviour domain was adapted from the ABCD-M questionnaire. Descriptive analysis and binary logistic regression were done to analyse the factors using SPSS v29.

**Results:** Out of 230 patients that were recruited, only 21.3% were able to identify all 5 stroke warning signs with most known sign was sudden numbness or weakness on one side of body (n=203 or 88.3%), whereas only 23.9% was able to answer all 12 risk factors contributing to stroke. The mean number of warning signs known was  $3.2 \pm 1.4$  and mean number of risk factors known was  $9.2 \pm 2.8$ . There's a huge gap between the health seeking behaviour among this population with lowest mark of 8 and highest mark of 72. Factors that contributing to health seeking behaviour of stroke were age group (AOR -0.293, 95% CI 0.123 - 0.696), presence of heart disease (AOR -0.237, 95% CI 0.062 - 0.900) and total number of risk factors of stroke known (AOR 1.131, 95% CI 1.024 - 1.248).

**Conclusion:** Awareness of stroke warning signs and risk factors was still poor among the targeted population at risks of stroke. Huge gap in health seeking behaviour within this group warrants a better stroke prevention practice among this group of patients which can be promoted by the primary health care provider.

**Keywords:** awareness, cardio-metabolic risk factors, health seeking behaviour, stroke, warning signs

**Poster ID ASC - 18****Medication Adherence and Medication Concordance Among Chronic Illness Patients in Johor, Malaysia: A Cross-Sectional Study**

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**Background:** Medication non-adherence is a significant problem globally, affecting up to 50% of chronic illness patients. The complications can also be significant, with increased rates of disease complications and hospitalisations due to non-adherence. This research study seeks to find the medication non-adherence rate in Johor, Malaysia and to identify the relationship between medication adherence and treatment concordance.

**Method:** A community-based cross-sectional study was conducted among chronic disease patients in various locations in Johor. A validated questionnaire, the Malaysia Medication Adherence Assessment Tool (MyMAAT) and a Modified Concordance Scale were used to explore the study objectives.

**Results:** Medication non-adherence is defined as a MyMAAT score of <54. A total of 82 chronic illness patients participated in this study, with males (48.8%) and females (51.2%). The mean age of the participants is 57.5 years old. The study reported 58.5% non-adherence (MyMAAT <54). Males are 4 times more likely to be non-adherent than female patients (Female/Male OR 0.25 CI 0.098-0.641). A statistically significant weak correlation was found between the MyMAAT score and the Modified Concordance Scale score (SR  $p=.286$ ,  $\alpha=0.009$ ).

**Conclusion:** In conclusion, the study shows that there is a potential relationship between shared decision-making and improved medication adherence by patients in the Malaysian setting. More research should be done to verify these findings further.

**Keywords:** medication adherence, medication concordance, chronic illness, Malaysia, shared decision making

**Poster ID ASC - 19****Community-Based Health Education Intervention To Improve Knowledge, Attitude, And Practice on Dengue Fever in A Low-Socioeconomic Community in Kuala Lumpur, Malaysia**

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**Background:** Dengue fever remains a significant public health concern, particularly in low-socioeconomic communities where limited awareness and preventive measures contribute to disease transmission. This study aims to evaluate the impact of a community-based health education intervention in enhancing knowledge, attitude, and practice (KAP) regarding dengue prevention among residents of a low-socioeconomic community in Kuala Lumpur, Malaysia.

**Methods:** A total of 384 residents of the Projek Perumahan Rakyat (PPR) Sri Pantai were recruited by systematic sampling method. The community-based health education program (B.O.L.E.H. program) include health seminars, health education

materials including educational comics, TikTok videos, and a competition for the best floor for dengue prevention were conducted in the PPR Sri Pantai. Data were collected via face-to-face interviews using the validated KAP questionnaire pre- and post-intervention. Data were analysed descriptively. For bivariate analysis, Chi square test was applied. To explore the factors independently associated with the KAP of dengue prevention, a logistic regression model was introduced.

**Results:** Overall, the participants had good preventive practices and moderate dengue-related knowledge and attitudes pre-intervention. The intervention improved the dengue-related knowledge, attitudes and practices of the participants. There was statistically significant positive association between the level of dengue knowledge with gender and ethnicity ( $p < 0.05$ ). The attitudes towards dengue were associated with ethnicity, education level and knowledge level ( $p < 0.05$ ). In regression analysis, only dengue knowledge was significantly and positively associated with practice of dengue prevention.

**Conclusion:** Dengue preventive strategies amongst residents should focus on maintaining good dengue-related preventive practices. The community-based health education intervention has improved the levels of knowledge, attitude, and practice.

**Keywords:** dengue fever, KAP, community - based health education intervention

#### Poster ID ASC - 20

### Translation and Validation of the Insulin Treatment Appraisal Scale Questionnaire in Malay Version Among Type 2 Diabetes: A Study In Primary Care Clinic in Kuantan, Pahang

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**Introduction:** Effective management of diabetes mellitus often requires insulin therapy, yet patient beliefs and attitudes can significantly impact adherence and outcomes. The Insulin Treatment Appraisal Scale (ITAS) is a validated instrument by Snoek et.al in 2007 for assessing patient beliefs and attitudes towards insulin, particularly in individuals with type 2 diabetes. To ensure its accessibility and applicability to the Malaysian population, this study aimed to translate and validate the ITAS from its original English version into Bahasa Malaysia version.

**Method:** The newly drafted Insulin Treatment Appraisal Scale - Malay version (ITAS-M) was developed according to published guidelines for the translation of transcultural research. A total of 250 diabetes mellitus patients who were followed-up in Klinik Kesihatan Bandar Kuantan, Pahang were recruited for self-administration of the ITAS-M and form of their sociodemographic and clinical data. The construct validity of the ITAS-M was assessed using explanatory factor analysis (EFA) and the reliability via Cronbach's alpha.

**Results:** The ITAS-M questionnaire demonstrated acceptable internal consistency, with a Cronbach's alpha of 0.736. Furthermore, The KMO value of 0.825 and significant Bartlett's Test confirm the suitability of the data for factor analysis with a

two-factor solution explains 37.922% of the total variance. The exploratory factor analysis (EFA) suggests that perceptions of insulin use can be grouped into underlying factors, one related to negative perceptions and challenges and another related to positive benefits. Further validation, such as confirmatory factor analysis, may help refine these findings.

**Conclusion:** The results of this study demonstrate that the Malay version of the Insulin Treatment Appraisal Scale questionnaire is a reliable and valid instrument that can be used to assess the beliefs and attitudes of patients with type 2 diabetes towards insulin therapy in the Malaysian primary care setting.

**Keywords:** diabetes mellitus, insulin, psychological insulin resistance

#### Poster ID ASC - 21

### Reducing Stigma and Discrimination Against People Living with HIV Among Healthcare Workers in Seremban: A Targeted Intervention Study Using the HOPE Module

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**Background:** Stigma and discrimination (S&D) toward People Living with HIV (PLHIV) negatively impact treatment access, leading to delayed diagnoses, poor adherence, and avoidance of healthcare services. The HOPE (Hentikan Stigma dan Diskriminasi kepada ODHA dan Key Populations) Module, developed by the Ministry of Health Malaysia, aims to address stigma-related factors, reshape healthcare workers' (HCWs) perceptions, and enhance service quality for PLHIV, aligning with the "Health for All" goal. This study assesses S&D levels, knowledge, attitudes, and practices (KAP), identifies contributing factors, and evaluates the effectiveness of the HOPE Module.

**Method:** A two-phase intervention study was conducted at Seremban Health Clinic (SHC) and Seremban Dental Clinic (SDC). Phase 1 involved an assessment of 234 HCWs using a validated questionnaire to measure S&D levels, KAP, and contributing factors, analyzed using IBM SPSS. Phase 2 involved a selective intervention, where 20 HCWs with the lowest pre-test scores participated in the HOPE Module Workshop. Post-intervention assessments were conducted using the same questionnaire to evaluate changes in S&D and KAP. Higher scores reflected lower S&D, while lower scores indicated higher S&D. Results: In Phase 1, 72.2% (n=127) of respondents had moderate scores (50-80%), followed by 24.4% (n=100) had high scores (>80%), and 3.4% (n=7) had low scores (< 0.05). In Phase 2, following the HOPE Module Workshop, the post-intervention group demonstrated significant improvements, with 65% (n=13) achieving high scores, 35% (n=7) in moderate scores, and none remaining in low scores, indicating a substantial reduction in S&D.

**Conclusion:** This study highlights the effectiveness of the HOPE Module in enhancing KAP and reducing S&D among HCWs. Strengthening continuous training and tailored interventions is crucial to fostering a more supportive and equitable healthcare environment. Ultimately, this will enhance treatment access, improve patient experiences, and contribute to a better quality of life for PLHIV.

**Keywords:** stigma, HIV, healthcare workers

#### Poster ID ASC - 22

##### Quality Appraisal of Clinical Guidelines For Vulvar Disorders Using The AGREE II Instrument

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**Introduction:** Benign vulvar disorders including lichen simplex chronicus, lichen sclerosus, lichen planus, vulvodynia, and vulvar intraepithelial neoplasia, require effective management to elevate women's quality of life. This systematic review evaluates the methodological quality of clinical practice guidelines on the management of benign vulvar disorders using the AGREE II checklist.

**Method:** A systematic search for articles was conducted employing PubMed, EMBASE, Cochrane, and Science Direct from 1 January 2013 to 31 December 2023 which identified eighteen practice guidelines that fulfilled the inclusion criteria. Four appraisers independently assessed these guidelines using AGREE II tool, with a domain score of 50% or higher classified as high quality.

**Results:** Among the guidelines, one was classified as "recommended," sixteen as "recommended with modifications," and one as "not recommended." Guidelines performed best in the domains of clarity of presentation (75.3%), editorial independence (53.2%) and scope and purpose (51.1%). However, significant gaps were found in stakeholder involvement (46.5%), rigour of development (37.0%) and applicability (27.9%). The European Guideline for the Management of Vulvar Conditions (2021) by European Academy of Dermatology and Venereology is the most comprehensive, covering all five vulvar disorders. The Guidelines for the Management of Lichen Sclerosus (2018) by British Association of Dermatologists the only guideline recommended without modifications, achieving satisfactory scores across all domains.

**Conclusion:** Overall, the guidelines propose similar management strategies with minor variations. Medical practitioners are encouraged to treat patients with vulvar conditions in accordance with evidence-based recommendations in these guidelines.

**Keywords:** vulvar disorders, practice guidelines, quality appraisal

#### Poster ID ASC - 23

##### Knowledge, Attitude, and Practice of Contraception Among Primary Health Care Doctors in Selangor

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**Introduction:** Rapid population growth in Asian countries has profound implications on family well-being, community health, and national development. Contraceptive use plays a crucial role in addressing these challenges. According to the World Health Organization (WHO) in 2022, the global contraceptive prevalence was 65% for any method and 58.7% for modern methods among married or in-union women. Healthcare providers' knowledge, attitude, and practice (KAP) towards contraception are vital in influencing patients' uptake of contraceptive methods and strengthening family planning services, particularly in primary care settings.

**Method:** A cross-sectional study was conducted across 43 public health clinics in four districts of Selangor — Petaling, Hulu Selangor, Sabak Bernam, and Hulu Langat. Data were collected between July and September 2024 using a validated, self-administered questionnaire. Participants included clinically active primary care doctors and family medicine specialists. Data analysis was performed to assess KAP levels and factors associated with contraceptive counselling practices.

**Results:** A total of 149 complete and 101 incomplete responses were received. The mean age of respondents was 37.5 years (95% CI: 36.8–38.1). The majority were female (81.1%), Malay (62.2%), followed by Indian (23.0%) and Chinese (10.8%) ethnicities. Female doctors were significantly more likely to routinely discuss contraception with patients, with an odds ratio of 6.36 (95% CI: 1.59–25.50).

**Conclusion:** This study identified important gaps in contraception-related knowledge, attitude, and practice among primary care doctors in Selangor. Female doctors were more likely to provide contraceptive counselling. The findings highlight the need for targeted educational interventions to enhance contraceptive counselling skills and improve family planning services at the primary care level.

**Keywords:** contraception, knowledge, attitude, practice, primary care, Malaysia

### Poster ID ASC - 24

#### Diaper Dermatitis As An Initial Presentation Of Type 1 Diabetes Mellitus in A Toddler: A Case Report

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**Introduction:** Diaper dermatitis is a relatively common occurrence among diaper-wearing children and is mostly benign. It accounts for one-fourth of pediatric dermatology visits in primary care. Generally, diaper dermatitis can be classified as chaffing dermatitis, irritant dermatitis, or candida-induced. Confluent areas of redness with satellite lesions are strongly associated with candida infection in diaper dermatitis. A high index of suspicion is required in recurring or refractory diaper dermatitis to avoid missing a more significant condition such as diabetes mellitus.

**Case Presentation:** Herein, we report a case of a 1-year and 10-month-old boy who initially presented with candida-induced diaper dermatitis for two weeks. He had multiple visits to various healthcare centers due to worsening rash despite regular application of topical miconazole. On further history, the child also had polyuria, polydipsia, and weight loss, but they were not detected in the initial visits. The diagnosis of type 1 diabetes mellitus was only made when he eventually presented to the emergency department with diabetic ketoacidosis symptoms of persistent vomiting, reduced oral intake, and lethargy.

**Discussion:** Recognizing type 1 diabetes mellitus before they present with diabetic ketoacidosis has long-term benefits, including reducing the risk of neurocognitive impairment, acute morbidity, and mortality. This case highlighted the importance of raising awareness among healthcare practitioners to facilitate prompt diagnosis of type 1 diabetes mellitus when such cases are presented at healthcare centers. A simple bedside glucometer reading can rule out type 1 diabetes mellitus, allowing immediate action rather than sending patients home with the potential risk of returning with diabetic ketoacidosis.

**Keywords:** diaper dermatitis; diabetic ketoacidosis; diabetes mellitus

### Poster ID ASC - 25

#### Healthy Gums Does It Matter? Amlodipine-Induced Gingival Overgrowth (AIGO): A Case Report

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**Background:** Calcium channel blockers are one of the recognizable drug-induced gingival overgrowth despite anticonvulsants and immunosuppressants. We report a case of an elderly man with underlying essential hypertension who developed amlodipine-induced gingival overgrowth (AIGO).

**Case Presentation:** A 70-year-old elderly male who has hypertension and dyslipidemia and on daily tablets of amlodipine 10 mg and simvastatin 10 mg for the past 4 years presented with progressive swelling of upper and right lower gums for 3 months. He had painless and gradual enlargement of the gingiva associated with gum discomfort, causing difficulty in chewing, mal-alignment, and loosening of the teeth of the gums involved. Oral examinations show poor oral hygiene with gingival overgrowth found throughout the maxilla and right mandible, especially over the right buccal region. After ruling out other causes, based on clinical findings amlodipine-induced gingival overgrowth was confirmed for this patient. We substituted an angiotensin-converting enzyme inhibitor for amlodipine, and within a few days, the progress of the disease was halted.

**Discussion:** Generally, AIGO occurs within the first 3 months of starting a dose of amlodipine 10 mg/day. As in our patient, however, the enlargement occurred after 4 years of taking the drug at a dose of 10 mg daily. The time duration of gingival overgrowth varies in our case due to multifactorial causes such as genetic susceptibility and host response to drug-induced gingival fibroblasts, interleukins, and matrix-metalloproteinases. Other than that, poor oral hygiene in this patient plays an important role in gingival overgrowth as well. This was supported by the strong relation between inflammation and AIGO demonstrated by the fact that AIGO can be successfully controlled even under continuous amlodipine administration by meticulous professional and individual oral hygiene.

**Conclusion:** Amlodipine is a commonly prescribed antihypertensive drug in primary care, every healthcare practitioner should be aware of this usually overlooked but potentially harmful side effect of generalized gingival overgrowth. Poor oral hygiene is one of the important risk factors for AIGO that need to be addressed, thus frequent dental check-ups are recommended for every patient who is on this medication in order to prevent this adverse effect.

**Keywords:** hypertension, gingival overgrowth, dihydropyridine calcium channel blocker

### Poster ID ASC - 26

#### Rare Neurological Manifestations of Expanded Dengue Syndrome in Postpartum Period

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**Background:** Dengue fever is a significant health threat in Malaysia. In 2011, the World Health Organization expanded the understanding of the disease by introducing the term “Expanded Dengue Syndrome”, which includes atypical and severe organ involvements, including intracranial hemorrhage. This highlights the importance of raising awareness among the health care workers on the serious nature of dengue complications.

**Case presentation:** A healthy 34-year-old female, at day 22 of postpartum, presented with compensatory shock at day 5 of dengue fever. Her Nonstructural protein (NS1) antigen test was positive at day 2 of illness and dengue IgM and IgG were positive on the day of presentation. She was alert, febrile, tachycardic but normotensive. Physical examination was unremarkable. Her condition improved after fluid resuscitation. Her platelet = 85 x 103/uL. She became less responsive the following day with a GCS of 8. Computerized Tomography of the brain revealed acute right subdural hemorrhage with midline shift. Decompressive craniectomy was performed, however her condition deteriorated and succumbed to death on the 22nd day of admission.

**Discussion:** ICH is a rare and challenging complication in dengue. Its pathogenesis remains unclear and platelet counts do not correlate with the incidence of ICH. Multifactorial mechanisms including vasculopathy, hemostasis and platelet dysfunction were suggested which could lead to ICH. If specific risk factors could be identified, in this case is special population at early postpartum period, early referral and closer monitoring could bring about earlier detection or prevent ICH.

**Conclusion:** Dengue fever complicated with ICH has a high mortality rate of 30.8%. No treatment seems beneficial once severe ICH occurs, thus prevention of ICH should be the main aim. The possible contributing risk factor for the outcome of this patient discussed, is being in a postpartum period. Thus, identification of high risk patients and early referral is vital to allow closer monitoring and timely intervention.

**Keywords:** dengue fever, intracranial hemorrhage

#### Poster ID ASC - 27

##### **Background atopy, persistent hypereosinophilia and leukocytosis in a child with weight loss - is there a sinister link? : A case report**

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**Background:** Primary care physicians (PCPs) are the first line of defence in identifying patterns of common diseases—but also in recognizing when something doesn't fit. PCPs frequently encounter hypereosinophilia (HE) in children with atopic diseases. While mild HE is common, persistent and extreme eosinophilia should raise concerns for alternative diagnoses, including hypereosinophilic syndrome (HES). Misattributing HE solely to atopy can result in delayed diagnosis, unnecessary morbidity, and missed opportunities for timely intervention. This case highlights the need to recognize when eosinophilia deviates from expected patterns.

**Case Presentation:** A 10-year-old boy with moderate persistent asthma, allergic rhinitis, and nasal polyps presented with progressive weight loss (10 kg over three months), persistent cough, and lethargy. Despite multiple paediatric reviews over the past 2 years, serial full blood counts which repeatedly showed severe HE (24,340/mm<sup>3</sup>) and leucocytosis was attributed to atopy without further investigation. Concerned by the atypical presentation and persistent eosinophilia, a family physician initiated additional workup, revealing hepatosplenomegaly

and elevated serum B12, raising suspicion for HES. Further immunologic and hematologic evaluation ruled out malignancy, leading to a provisional diagnosis of HES. Child was reviewed by immunologist and genetic testing was arranged to confirm the diagnosis and decide the need for lifelong immunotherapy.

**Discussion:** This case emphasizes several key learning points for primary care providers (PCPs). Firstly, persistent hypereosinophilia (HE) of more than 1,500/mm<sup>3</sup> on at least two occasions should not be readily dismissed as atopy without a thorough clinical evaluation. Secondly, PCPs must maintain a high level of vigilance when clinical presentations deviate from expected patterns. Lastly, PCPs play a pivotal role in initiating appropriate investigations and advocating for timely specialist input when red flags emerge, ensuring early diagnosis and optimal patient outcomes.

**Conclusion:** This case underscores the importance of clinical reasoning in primary care. Pattern recognition is essential, but recognizing when a case does not fit expected patterns is even more critical. PCPs are in a unique position to detect early warning signs, initiate investigations, and ensure timely specialist referrals, preventing delays that could impact patient outcomes. This case reinforces the power of clinical reasoning in primary care and the vital role of PCPs in ensuring patients don't fall through the cracks of subspecialty care.

**Keywords:** hypereosinophilia, primary care, diagnostic reasoning

#### Poster ID ASC - 28

##### **Combatting Neonatal Pertussis: A Case Report on Preventable Tragedy**

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**Background:** Pertussis, or whooping cough, is a highly contagious respiratory infection caused by *Bordetella pertussis*. While vaccination has significantly reduced its incidence, cases are rising in Malaysia, particularly post-pandemic. Infants too young for vaccination are at high risk, often infected by undiagnosed family members.

**Case Presentation:** We report a fatal case of pertussis in a 6-week-old infant. The baby developed a persistent cough after exposure to family members with undiagnosed pertussis. Initially misdiagnosed and treated for tonsillitis, the infant's condition worsened, leading to hospitalization with severe respiratory distress. Despite intensive care, the infant succumbed to septic shock. Contact tracing confirmed pertussis in the family, including a 14-year-old sibling, highlighting gaps in diagnosis and prevention.

**Discussion:** This case underscores the need for improved clinical vigilance, timely diagnosis, and maternal vaccination. Although Malaysia maintains high childhood vaccination coverage, pertussis cases persist due to waning immunity in adolescents and adults, who serve as reservoirs. Misdiagnosis remains a challenge, as pertussis symptoms often mimic common respiratory infections. Addressing vaccine hesitancy is also crucial, as post-

pandemic scepticism has impacted immunization efforts. The upcoming maternal Tdap vaccination program in Malaysia is a critical step toward preventing such tragedies.

**Conclusion:** Enhancing clinical awareness, promoting maternal vaccination, and addressing vaccine hesitancy are keys to reducing neonatal pertussis mortality. Early diagnosis and public education can help prevent future cases.

**Keywords:** pertussis, infant, vaccination, maternal immunization, prevention

#### Poster ID ASC - 29

### Verruca Vulgaris of Vulva in Postmenopausal Woman: Atypical Presentation in Health Clinic. A Case Report

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**Background:** Verruca vulgaris, or common wart, is a frequent skin infection caused by human papillomavirus (HPV), primarily types 1, 2, 4, 27, and 57, with additional strains like 60, 63, 65, and 66 also implicated. It predominantly affects children and adolescents, with young adults being more susceptible when it occurs in adulthood. Lesions may be solitary or multiple, commonly appearing on exposed areas like the fingers. However, occurrence in covered regions such as the axillae, groin, or genital areas is rare.

**Case Presentation:** A 77-year-old nulliparous woman with well-controlled hypertension and dyslipidemia presented to the primary care clinic with a whitish exophytic genital lesion persisting for a year. Initially pea-sized, it progressively enlarged over three months. She reported no pain, bleeding, or discharge but experienced nocturnal pruritus. She denied vaginal dryness, postmenopausal bleeding, systemic symptoms, or similar lesions elsewhere. Despite initial advice for hospital referral, she opted for topical steroids from a general practitioner, which provided no relief. Her medical history includes surgical menopause at 43 following total abdominal hysterectomy with bilateral salpingo-oophorectomy (TAHBSO) for 2 uterine fibroids. She married at 40, has six stepchildren, and has been sexually inactive since her husband's passing 10 years ago. Examination revealed an irregular, whitish-to-reddish fungating growth (5×2 cm) involving the left labia minora and extending to the clitoris, with additional involvement of the upper third of the right labia minora. There was no ulceration or contact bleeding. Cystoscopy showed anterior and left lower urethral involvement, with mid-urethral resistance preventing bladder visualization. Histopathology confirmed verruca vulgaris. She was referred to dermatology for cryotherapy.

**Conclusion:** Verruca vulgaris rarely found at vulva region furthermore in postmenopausal women. Due to its rarity, high index suspicious for vulva malignancy should remain on top of the list for any vulva lesion in postmenopausal women.

**Keywords:** verruca vulgaris, postmenopausal, vulva

#### Poster ID ASC - 30

### Wart at The Core: A Rare Case of Verrucous Lesions Impairing Insulin Absorption and Glycemic Control

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**Background:** Verrucous skin lesions at insulin injection sites are a rare dermatological complication resulting from repeated trauma and improper injection practices. Chronic mechanical irritation can induce hyperkeratosis and verrucous changes, impairing insulin absorption and glycemic control. Early detection and intervention are crucial in managing these lesions.

**Case presentation:** We report a rare case of a 45-year-old Indian woman with poorly controlled diabetes mellitus (HbA1c increasing from 8% to 11%) due to improper insulin delivery caused by verrucous warty lesions at her abdominal insulin injection sites. The lesions developed after prolonged use of the same injection sites, resulting in physical skin changes that impaired insulin absorption. Clinical examination revealed hyperkeratotic, wart-like lesions at the injection sites. Treatment with topical salicylic acid 2% led to significant resolution of the lesions, and education on site rotation improved her injection practices. This intervention, combined with proper glycemic management, led to improved blood sugar control and prevented further skin complications. This case highlights the importance of skin assessments and patient education in diabetes management to prevent rare but impactful dermatological complications.

**Discussion:** This case highlights a rare complication of insulin therapy which is verrucous lesions at repeated injection sites. Chronic trauma from repeated insulin injections can lead to localized hyperkeratosis and the formation of warty growths, likely exacerbated by prolonged inflammation. These lesions impair insulin absorption, leading to poor glycaemic control. The uniqueness of this case lies in the rarity of verrucous lesions as a dermatological manifestation of improper insulin injection techniques and their profound impact on diabetes management. Regular skin inspection is vital for patients on insulin therapy, especially those with poor glycaemic control. Educating patients about site rotation and proper injection techniques can prevent such complications. Prompt dermatological intervention, combined with optimizing injection practices, can significantly improve outcomes.

**Conclusion:** This case underscores the importance of holistic care in diabetes management. Verrucous lesions caused by repetitive trauma from insulin injections not only impair glycemic control but also reduce patient adherence and confidence in self-care. Early identification, effective treatment, and patient education are crucial in preventing such complications.

**Keywords:** verrucous keratosis, insulin injection site reactions, diabetes mellitus

**Poster ID ASC - 31**

**Madelung Deformity of The Wrist in A 13-Year-Old Girl: A Case Report**

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**Case Presentation:** This case report illustrated a 13-year-old girl who presented with progressive bilateral wrist deformity and disproportionate short stature. Her parents noticed the deformity in the last one year and decided to seek treatment when patient reported pain upon prolonged use and while lifting heavy objects. The examination revealed that the patient height is only 137cm, along with short limbs. Her extended family members also exhibit short stature but there is no reported history of upper limbs deformities. Radiographic evaluation showed characteristic features of Madelung Deformity, a rare congenital deformity due to asymmetrical growth of the distal radius as a result of premature closure of its medial and volar aspects of distal growth plate.

**Discussion:** It is more common in female and usually patients present during adolescent with wrist pain and deformity as well as reduced range of movement. At initial diagnosis, genetic testing is recommended as it has been associated with Léri-Weill dyschondrosteosis (LWD) and Turner syndrome. The Short-stature homeobox (SHOX) deficiency is linked to these two conditions. The deformity can also be acquired from repeated trauma, infection and idiopathic. The distinguishing element between congenital and acquired Madelung Deformity is the presence of Vickers ligament. Treatment options include conservative and surgical approaches, depending on age of presentation, level of deformity, the functionality of the hand and degree of discomfort. This case report aims to emphasize the importance of considering uncommon diagnoses when evaluating joint deformity and pain in adolescents in a primary care setting to avoid delay in diagnosis and treatment.

**Keywords:** wrist deformity, madelung deformity, vickers ligament

**Poster ID ASC - 32**

**Two Isn't Always Better - A Case of Recurrent Miscarriage Due To Didelphys Uterus**

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**Background:** Didelphys uterus is a rare congenital anomaly resulting from incomplete fusion of the Mullerian ducts. The incidence ranges from 0.5 to 5.0% in the general population<sup>5</sup>. It can present as complete duplication of the uterus, cervix and vagina with increased risk of complications such as recurrent miscarriages, preterm birth and fetal malposition<sup>1</sup> however normal term pregnancy can be achieved with successful delivery rates of around 45%<sup>5</sup>.

**Case presentation:** A 31-year-old female, G3P0+2 at 6 weeks POA, complained of lower abdominal pain with per vaginal (PV) spotting for 2 days. Her past obstetric history includes two recurrent first trimester miscarriages. Her UPT was positive with B-hCG level of 206 IU/L. Initial transvaginal ultrasound (TVS) findings was retroverted uterus with an endometrial thickness of 9 mm, no intrauterine gestational sac (IUGS), normal bilateral ovary, no adnexal mass or free fluid. At first, she was diagnosed with early pregnancy of unknown location and admitted for monitoring due to increasing PV bleed and declining B-hCG level (206 to 82.6 IU/L in 48Hr), consistent with a failing pregnancy. Her previous investigations including hormonal blood tests, endocrine disorder, and infectious causes were normal. While inpatient, it was found that she has two cervixes during per speculum examination. A didelphys uterus was later confirmed on repeat imaging, which likely contributed to her recurrent pregnancy loss. Pelvic MRI were planned for further assessment of her uterine anatomy. Her anxiety regarding uterine anomaly was addressed and reassured that it is possible to have healthy pregnancy with close follow-up.

**Discussion:** Women with uterine abnormalities, including didelphys, are more likely to experience first-trimester pregnancy losses<sup>2</sup>. This is due to abnormal uterine shape which affected embryo implantation leading to miscarriage<sup>1,2</sup>. Biochemical pregnancies, often resulting from implantation failure, are more common in women with uterine anomalies due to impaired endometrial receptivity or abnormal uterine vasculature<sup>4</sup>. This case highlights the challenges of managing recurrent miscarriages in the context of uterine anomalies, specifically didelphys uterus. While it is compatible with pregnancy, didelphys uterus poses significant risk for adverse outcomes.

**Conclusion:** In conclusion, early diagnosis through imaging, careful monitoring of B-hCG levels and multidisciplinary approach are crucial. Patient education and psychological support are also necessary to alleviate anxiety and improve compliance with follow up care. Further investigation into the cause of recurrent early pregnancy miscarriages is necessary and multidisciplinary care is recommended to ensure best outcomes for patient.

**Keywords:** didelphys uterus, recurrent miscarriages, mullerian duct anomalies

**Poster ID ASC - 33**

**Giant Cystic Pterygium (GCP): A Rare Atypical Presentation Of Pterygium**

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**Background:** Giant Cystic Pterygium (GCP) is a rare and atypical variant of pterygium, characterized by a large, cystic fibrovascular conjunctival lesion in the body of pterygium. Clinically, GCP may mimic conjunctival intraepithelial neoplasia (CIN), necessitating histopathological examination (HPE) for definitive diagnosis.

**Case presentation:** We report the case of a 35-year-old male welder who presented with progressive right eye discomfort, redness, and a foreign body sensation persisting for four years, with worsening blurring of vision over the past one year. Examination revealed a large, cystic, vascularised mass in the body of pterygium on the nasal side of his right eye, encroaching upon the peripheral cornea. He was urgently referred to an ophthalmologist due to its atypical presentation and concerns of possible CIN. Subsequently, he underwent pterygium excision together with the cystic mass and conjunctival autografting. HPE analysis showed cystic degenerations lined by metaplastic non-keratinized squamous cells epithelium with surrounding substantia propria haemorrhage.

**Discussion:** Welding activities without proper eye protection pose significant risk for pterygium occurrence. However, a large cystic vascularised pterygium should be referred urgently to ophthalmologist for further evaluation of potential malignancy. Primary care physician are the first contact of all eye problems in the community and early detection of GCP is vital to prevent more serious complications.

**Conclusion:** This case underscores the importance of recognising atypical presentations of pterygium to ensure accurate diagnosis and timely management.

**Keywords:** conjunctiva, intraepithelial neoplasms, pterygium

#### Poster ID ASC - 34

### Blurring of Vision as An Early Sign of Rare Complication of Wernicke Encephalopathy Following Severe Hyperemesis Gravidarum: A Case Report

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**Background:** Wernicke's encephalopathy (WE) due to vitamin B1 deficiency is a potentially fatal but reversible medical emergency with complete recovery occurring in only 29% of cases associated with hyperemesis gravidarum (HG) in pregnancy. It is diagnosed clinically with gradual and episodic onset typically presenting with classical triad of ophthalmoplegia, altered mental status and ataxia.

**Case Summary:** This case illustrates a 42-years old Gravida 2 Para 1 at 16 weeks and 3 days period of gestation (POG) presented to primary care during antenatal follow up with history of sudden visual loss occurring two weeks prior to her clinic visit after approximately 8 weeks having persistent nausea and vomiting. At presentation, patient appeared cachectic looking with sunken eyes and looks extremely lethargic having lost 15 kg in total weight since the start of her pregnancy including 5kg in

the past 2 weeks. She was tachycardic with heart rate of 116 beats per minute though her blood pressure remains normotensive. Eye examination revealed visual acuity of counting fingers with positive horizontal nystagmus suggesting ophthalmoplegia; however, funduscopy findings were normal. Urinalysis showed ketonuria and proteinuria of 3+ with laboratory findings showing severe acute kidney injury. She was promptly transferred to a tertiary center where she was treated with intravenous Thiamine 500 mg three times daily along with electrolyte replacement and hydration. Her symptoms resolved within 48 hours and her visual acuity returned 6/6 bilateral eye within two days. She was discharged with ongoing tapering thiamine supplement which is to be continued until delivery and was well subsequently throughout pregnancy.

**Conclusion:** We should be alerted especially in pregnant patients with severe HG as it is a rare complication and fatal but reversible. Optimal thiamine supplementation offers curative and preventive treatment for WE and prophylaxis should be started earlier for patients at risk of developing WE.

**Keywords:** wernicke encephalopathy (WE), hyperemesis gravidarum (HG), pregnant, thiamine, primary care

#### Poster ID ASC - 35

### Voice of Warning: Hoarseness as An Atypical Presentation of Colon Cancer

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**Background:** Hoarseness of voice is a common presentation in primary care, often associated with benign causes such as upper respiratory airway infection. However, it may occasionally serve as a warning sign of systemic malignancies. This case report highlights the importance of thorough history-taking and bedside ultrasound as part of the screening assessment in managing non-communicable diseases in primary care settings.

**Case presentation:** A 58-year-old Chinese woman with no prior medical history presented with a one-month history of persistent hoarseness. Despite multiple visits to primary care clinics, her symptoms remained unresolved. Further history revealed a strong family history of colon cancer, altered bowel habits for one month, and intermittent haematochezia for three months. Clinical examination no significant findings.

**Results:** Bedside ultrasound as part of her initial assessment revealed a halo sign at segment 6 of the liver. Serum carcinoembryonic antigen (CEA) levels were markedly elevated at 4311. Subsequent colonoscopy identified a long-segment tumor starting at the upper rectum, extending up to 25 cm from the anal verge. A CT thorax, abdomen, and pelvis (CT TAP) revealed rectosigmoid colonic carcinoma with extensive liver and lung metastases. Histopathological analysis confirmed adenocarcinoma of the colon, with next-generation sequencing (NGS) identifying KRAS and BRAF mutations, rendering the tumor unsuitable for immunotherapy. The patient was diagnosed with stage IV colorectal cancer and commenced on palliative chemotherapy.

**Conclusion:** This case underscores the need for comprehensive history-taking and the utility of bedside ultrasound in uncovering underlying malignancies in atypical presentations. Persistent hoarseness in high-risk patients warrant prompt and detailed investigations to ensure timely diagnosis and management.

**Keywords:** hoarseness, halo sign, cancer screening, colorectal cancer

#### Poster ID ASC - 36

### Delayed Presentation Of Leprosy in A Military Healthcare Centre: A Case Of Painless Bilateral Limb Swelling

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**Background:** Leprosy, or Hansen's disease, is a chronic infectious condition caused by *Mycobacterium leprae* that has existed for centuries. Despite global efforts to eliminate the disease, it remains a significant public health concern in endemic regions. Early detection is crucial to prevent complications, disabilities, and disease transmission. Several factors contribute to delayed diagnosis. This case illustrates a delayed diagnosis in military personnel who eventually sought care at a military medical centre.

**Case Report:** 25-year-old navy personnel presented with painless swelling of both upper and lower limbs for 18 months. Initially, he noticed dry patches that gradually thickened and swollen, particularly on his right upper limb, followed by thickened skin lesions on his nose and bilateral cheeks. He also reported hypopigmented patches at the eyebrow that were painless and non-itchy. He sought treatment from a traditional healer but discontinued care after a year without improvement. Eventually, he came to our Military Medical Centre for his routine checkup, which led to a referral to a dermatologist for confirmatory testing and further management.

**Discussion:** Delayed diagnosis of leprosy can occur due to low disease awareness, reliance on traditional healing practices, and subtle early symptoms. Regular health screenings, clinical vigilance, and early dermatological referrals are essential to prevent complications and reduce disease transmission.

**Conclusion:** This case emphasises the need for increased clinical awareness, especially in patients with unexplained neuropathy and skin changes. Early diagnosis and prompt treatment are crucial to reducing disability and preventing disease transmission. Continued medical education and public health initiatives are essential to enhance disease recognition and ensure patients receive timely, effective care.

**Keywords:** leprosy, thickened skin, painless hypopigmentation

