E-POSTER GALLERY

5th National AIDS Conference 2026

95 accepted abstracts · 95 e-posters received

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Pott's Disease with Iliopsoas Abscess as a Manifestation of Disseminated Tuberculosis in Newly Diagnosed AIDS

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Pott's Disease with Iliopsoas Abscess as a Manifestation of Disseminated Tuberculosis in Newly Diagnosed AIDS

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INTRODUCTION

Spinal tuberculosis (Pott's disease) is an uncommon but serious form of extrapulmonary tuberculosis that may cause vertebral destruction, abscess formation, and neurological complications. We report a case of Pott's disease with iliopsoas abscess in a patient with advanced HIV infection.

CASE REPORT

A 31-year-old man with newly diagnosed advanced HIV infection presented with a two-month history of intermittent fever, lethargy, weight loss, and poor appetite. Chest radiography showed bilateral interstitial opacities, while arterial blood gas analysis revealed type 1 respiratory failure. HIV testing was positive, with a CD4 count of 77 cells/µL. He was treated empirically for Pneumocystis jirovecii pneumonia (PCP) with co-trimoxazole and corticosteroids, and sputum PCP polymerase chain reaction later confirmed the diagnosis. Persistent fever prompted further investigations, with sputum GeneXpert MTB and culture confirming pulmonary tuberculosis. During hospitalization, he developed persistent back pain without neurological deficits. Magnetic resonance imaging demonstrated L3/L4 spondylitis with a large right iliopsoas collection. Drainage of the abscess was performed, and GeneXpert MTB from the aspirate confirmed Mycobacterium tuberculosis, establishing the diagnosis of Pott's disease with iliopsoas abscess. Treatment was complicated by severe transaminitis. Co-trimoxazole was replaced with primaquine and clindamycin for PCP, while anti-tuberculosis therapy was temporarily modified to streptomycin, ethambutol, and levofloxacin before continuation with isoniazid, rifampicin, and ethambutol for nine months. Antiretroviral therapy was initiated two weeks after tuberculosis treatment. The patient achieved clinical recovery, with resolution of back pain, normalization of liver function, and virological suppression after four months.

DISCUSSION & CONCLUSION

Pott's disease should be considered in patients with advanced HIV infection presenting with persistent back pain, even without neurological deficits. Early imaging, microbiological confirmation, and multidisciplinary management are essential for favorable outcomes.

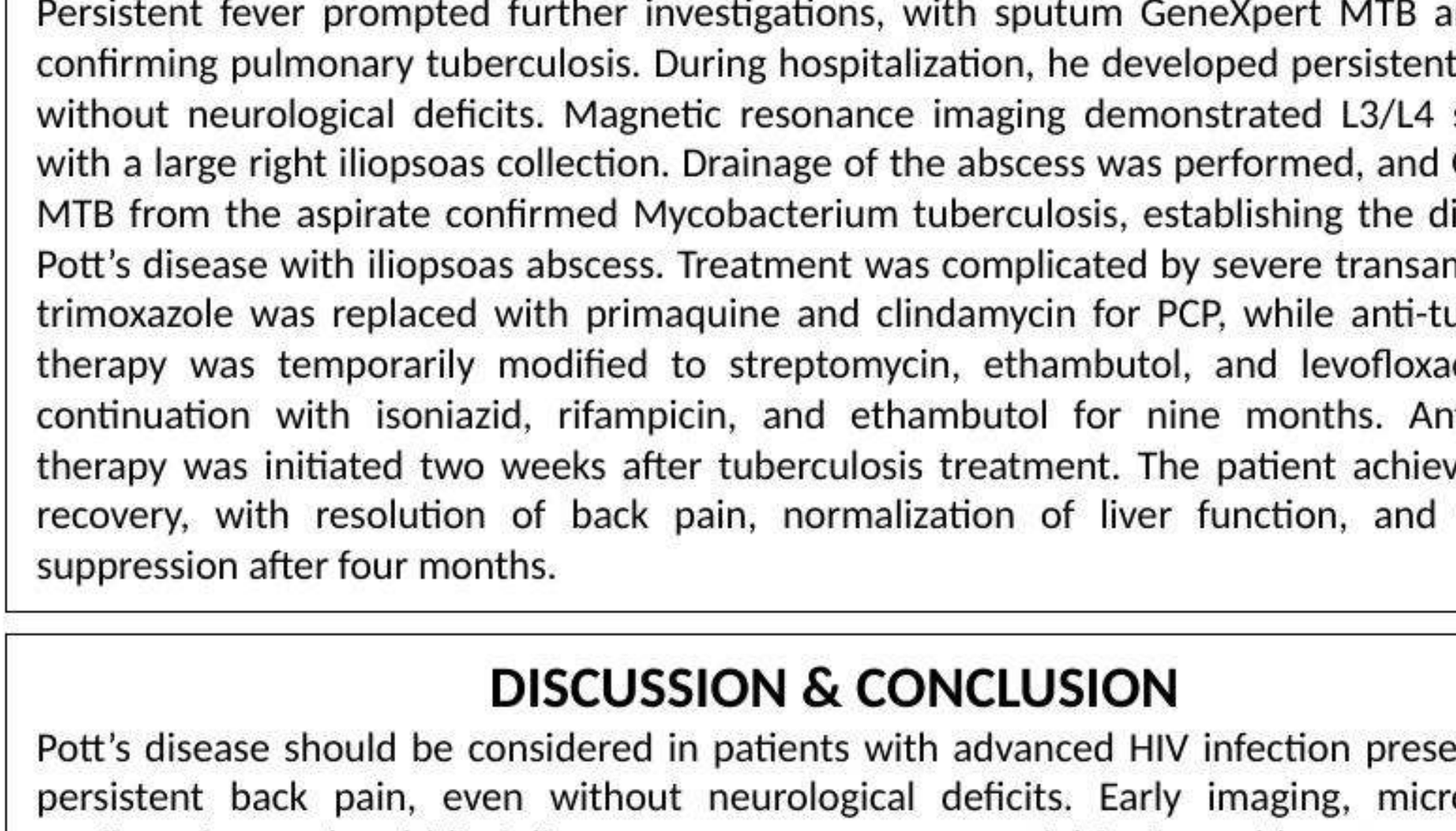


Figure 1 : Magnetic resonance imaging demonstrated L3/L4 spondylitis with a large right iliopsoas collection

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NAC26 EP006

Development and Validation of Risk Assessment Tool in Predicting HIV Treatment Failure

Mohd Farizh Che Pa
Ng Tiang Koi, Nor Arisah Misnan, Farida Hanim Islahudin, Mohd Makmor-Bakry
Hospital Tengku Ampuan Rahimah Klang

5TH NATIONAL AIDS CONFERENCE

DEVELOPMENT AND VALIDATION OF RISK ASSESSMENT TOOL IN PREDICTING HIV TREATMENT FAILURE

MOHD FARIZH CHE PA[1], NG TIANG KOI[2], ARISAH MISNAN[3], FARIDA ISLAHUDIN[4], MOHD MAKMOR-BAKRY[4]

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OBJECTIVES

- To develop a non-labarotary risk assessment tool to predict HIV treatment failure in PLHIV started on ART
- To assess the the internal validation of the tool developed

RESEARCH BACKGROUND

The advent of antiretroviral therapy (ART) has revolutionized the clinical management of HIV, transforming it from a fatal illness to a chronic condition [1]. However, despite the remarkable efficacy of ART in suppressing viral replication, treatment failure remains a critical concern. HIV treatment failure is multifactorial, often resulting from adherence, drug resistance, comorbidities and healthcare access barries [1,2]. Early identification of PLHIV at risk is essential for optimising clinical outcomes and resource allocation in HIV care.

METHODOLOGY

STUDY DESIGN
- A retrospective cohort study was conducted using secondary data from physical and electronic patient records.

STUDY SETTING
- Hospital Sungai Buloh
- Hospital Tuanku Ja'afar Seremban

STUDY POPULATION
- PLHIV initiated ART

DATA ANAYLSIS
- Logistic regression
- Internal validation (data splitting)
- Model performance: ROC, Hosmer-Lemeshow

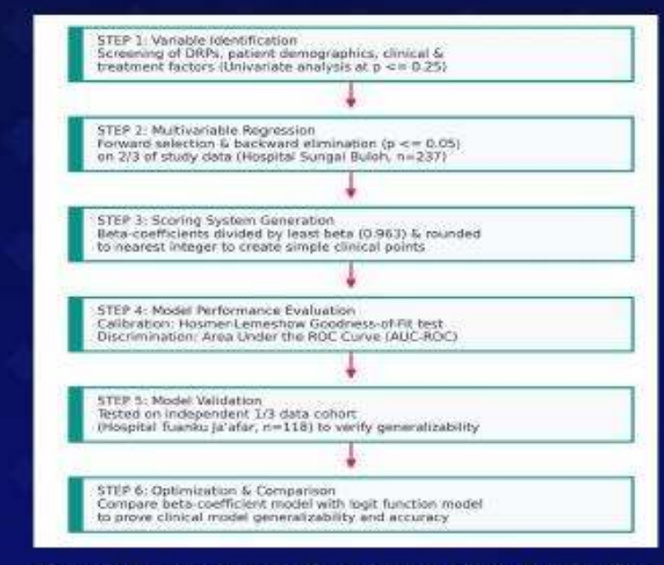


Figure 1: 6-step systematic development and validation workflow of the RAT

RESULTS

	Sensitivity	Specificity	PPV	NPV
Development Model	98.70%	62.50%	43.18%	98.36%
Validation Model	98.21%	51.61%	63.22%	96.77%

Table 1: Sensitivity, specificity, PPV and NPV for development and validation model

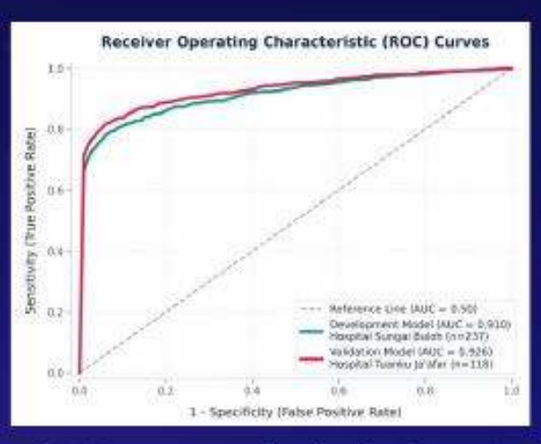


Figure 2: ROC curve comparison for development and validation models

Variables	Categories	Points	Tick (/) which one applies	Score
History of non-adherence	No	0		
	Yes	3		
Social support	No	2		
	Yes	0		
Use of reminder	No	3		
	Yes	0		
History of OIs	No	0		
	Yes	1		
Final Score				/9
Score Interpretation: > 3.5 : high risk of HIV treatment failure; < 3.5 : low risk of HIV treatment failure				

Table 2: The final risk assessment tool (RAT)

DISCUSSION

High Predictive Value
- Excellent sensitivity and PPV for identifying patients at risk, suitable for targeted interventions [3, 4, 5]

Data Analysis Result
- Non-adherence, poor social support and lack of reminders are key actionable areas.

Clinical Utility
- Enable early support, close follow-up and tailored adherence interventions to prevent treatment failure

Clinical Utility
- Moderate specificity and NPV
- Retrospective data may lack [3] comprehensive information on certain variables

CONCLUSION

The RAT can accurately identify patients at risk of HIV treatment failure, provide reliable predictions and be effectively integrated into clinical workflows to improve patients outcomes and optimise healthcare resources.

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5TH NATIONAL AIDS CONFERENCE 2026
NAC26 EP014
TRACK A · CLINICAL

Unmasking the Next Threat: Disseminated Cytomegalovirus Infection Following ART-Induced Immune Reconstitution in a Patient with Talaromycosis

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Hospital Raja Permaisuri Bainun Ipoh

11
CD4 cells/µL at baseline

2 610 000
HIV copies/mL

88 700
CMV PCR IU/mL

INTRODUCTION

Immune reconstitution inflammatory syndrome (IRIS) occurs in up to 30% of Human Imunnodeficiency Virus (HIV) patients after anti-retroviral therapy (ART) initiation and can present as unmasking IRIS or paradoxical IRIS.

CASE REPORT

We report a case of unmasking IRIS of disseminated CMV infection in a 47 year-old gentleman with newly diagnosed HIV infection presented with talaromycosis diagnosed from colonic histopathological examination (HPE) and blood culture which isolates talaromyces marneffei. Baseline CECT abdomen shows subcentimeter lymph node and colonic HPE demonstrates intracellular yeast-like fungal highlighted by PAS and GMS stains. His baseline CD4 is 11 cells/ul and HIV viral load is 2610000 copies/ml. He responds well to IV amphotericin B then switched to oral itraconazole and also started on Tenofivier/Lamivudine/Dolutegravir after 1 week of antifungal therapy. 3 weeks post ART commencement, he complains of fever associated with vomiting and diarrhoea, associated with liver impairment and acute kidney injury. He undergoes repeated CECT abdomen and colonoscopy. The new changes on imaging are increasing size of abdominal lymphadenopathy and thickening of caecum wall. There is multiple shallow ulcer noted at the caecum, its HPE reveals intranuclear and basophilic intracytoplasmic inclusions plus positive cytomegalovirus (CMV) immunohistochemistry. His serum CMV PCR is 88700 IU/ml. He treated with IV ganciclovir and oral valganciclovir followed by resolved clinical symptom.

DISCUSSION

IRIS is associated with an increased risk of death with reported overall mortality rate about 4.5%, occurs commonly during first 3 months post ART initiation and up to 4 years. Attributable risk factors for IRIS development encompass low CD4 count, short interval between the initiation of ART and treatment for OI. CMV IRIS has incidence rate of 15% with common manifestation as ocular features such as vitreitis.

CONCLUSION

Our case depicts an unmasking CMV IRIS with colitis in absence of retinitis which responds well to antiviral.

Delayed-Onset Movement Disorder Associated with Efavirenz Therapy in HIV: A Case Report

Ku Nor Ezzati Tuan Long Seng
Anilawati Mat Jelani, Noridah Nordin, Rose Izura Abdul Hamid
HRPZ II

5TH NATIONAL AIDS CONFERENCE 2026
NAC26 EP016
TRACK A · CLINICAL

Delayed-Onset Movement Disorder Associated with Efavirenz Therapy in HIV: A Case Report

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Anilawati Mat Jelani, Noridah Nordin, Rose Izura Abdul Hamid
HRPZ II

43 year-old man

315 CD4 cells/mm³

1 year on efavirenz 600 mg

■ INTRODUCTION

Efavirenz, a non-nucleoside reverse transcriptase inhibitor (NNRTI), is widely used in antiretroviral therapy (ART) for HIV infection. Early neuropsychiatric adverse effects are common and usually transient. However, movement disorders are rarely reported, and delayed neurological manifestations after prolonged efavirenz exposure are uncommon and may present diagnostic challenges

■ CASE REPORT

We report a 43-year-old man with HIV infection, who was virologically suppressed with a CD4 count of 315 cells/mm³ while receiving ART consisting of tenofovir/emtricitabine and efavirenz 600 mg ON for one year, presenting with a five-day history of intermittent involuntary jerky movements involving the right eye, face, neck, and right upper limb. Each episode lasted approximately 10 seconds, recurred every few minutes, and occurred with preserved consciousness. Computed tomography (CT) of the brain was unremarkable. He required intravenous diazepam for symptom control and was initially treated with antiepileptic agents due to suspected focal seizures, before being discharged on oral clonazepam. As the abnormal movements persisted, he was re-evaluated, cerebrospinal fluid analysis, routine laboratory investigations, and urine toxicology screening were normal. Neurological assessment suggested a choreiform movement disorder, and after exclusion of structural, infectious, and metabolic causes, efavirenz-induced movement disorder was suspected. Following cessation of efavirenz and modification of ART, the abnormal movements resolved completely.

■ CONCLUSION

Efavirenz-induced movement disorders are rare and may occur even after prolonged exposure to therapy. This case highlights an unusual, delayed presentation of efavirenz-associated hemichorea mimicking focal seizures. Clinicians should consider medication-induced neurological adverse effects in patients with HIV presenting with new-onset abnormal movements, even in those on long-term efavirenz therapy, after exclusion of opportunistic infections and structural brain pathology.

NAC26 EP019

Effectiveness and Implementation of Patient-Centred, Pharmacist-Led CARE-TB Versus Standard DOT for Intensive-Phase Adherence Among Adults With Tuberculosis in Malaysia: A Hybrid Type 2 Randomized Study

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Frederick L. Altice, Asrul Akmal Shafie, Lee Yew Kong, Reena Rajasuriar
Universiti Malaya

All contents | Track A list | Track B list | Track C list

[NAC26EP019]

Effectiveness and Implementation of Patient-centred, Pharmacist-led CARE-TB versus Standard DOT for Intensive-phase Adherence Among Adults with Tuberculosis in Selangor, Malaysia

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1. Department of Pharmacy, Hospital Sungai Buloh; 2. Department of Medicine, Hospital Sungai Buloh; 3. Department of Medicine, Universiti Malaya; 4. Department of Primary Care Medicine, Universiti Malaya; 5. Institutional Planning & Strategic Centre, Universiti Sains Malaysia; 6. Yale School of Medicine, Yale University, USA.

BACKGROUND

TB outcome gap in Malaysia: **1 in 20 people with TB (PWTB) were loss to follow-up** between 2014 – 2017, highlighting persistent gaps in TB treatment adherence and retention.[1]

Evidence-based intervention (EBI): WHO recommends digital adherence technologies to enhance TB treatment adherence.[2]

Evidence-practice gap: In Malaysia, TB adherence support remains fragmented and inconsistently monitored across care settings, while video observed therapy (VOT) models remain constrained by operational and workforce limitations.

Aim: To evaluate observed-dose adherence, safety, and implementation outcomes of CARE-TB versus standard care (SOC) during the intensive phase.

PICO

P OPULATION
Adults with drug-susceptible TB at Hospital Sungai Buloh; enrolled Apr-Nov 2025; n=80, including 9 HIV/TB

I NTERVENTION
CARE-TB: Pharmacist-led asynchronous video observed therapy (aVOT) + reminders + motivational telecounselling + TB e-learning

C OMPARATOR
Standard Care (SOC): daily directly observed therapy (DOT) by facility/caretaker

O UTCOMES
Primary: ≥80% observed doses over 8 weeks
Secondary: safety (ADR, hospitalization), clinical & implementation outcomes

METHODOLOGY

A hybrid Type 2 randomized study

(637 screened)
ITT n = 80
1:1 block randomization

40 CARE-TB | **40 SOC**

Excluded: Unconfirmed TB (117), complicated TB (62), continuation phase (268), structural/ demographic barrier (91), declined (10), missed enrolment (8)

8 weeks adherence window; follow-up until end-of-treatment, death, loss-to-follow-up, or data cut-off (31st July 2026)

Baseline characteristics
Groups were broadly balanced at baseline.

Characteristic	SOC (n = 40)	CARE-TB (n = 40)	P-value
Age, mean (SD)	45.8 (17.7)	40.8 (14.4)	0.174
Male, n (%)	30 (75.0)	22 (55.0)	0.101
Pulmonary TB, n (%)	33 (82.5)	29 (72.5)	0.504
Smear positive, n (%)	22 (55.0)	24 (60.0)	0.821
Recurrent TB, n (%)	6 (15.0)	5 (12.5)	1
HIV-positive, n (%)	5 (12.5)	4 (10.0)	1
Diabetes, n (%)	12 (30.0)	9 (22.5)	1
Malnutrition, n (%)	2 (5.0)	1 (2.5)	1
Smoking, n (%)	13 (32.5)	13 (32.5)	1

RESULTS

A. Adherence improved at 8 weeks

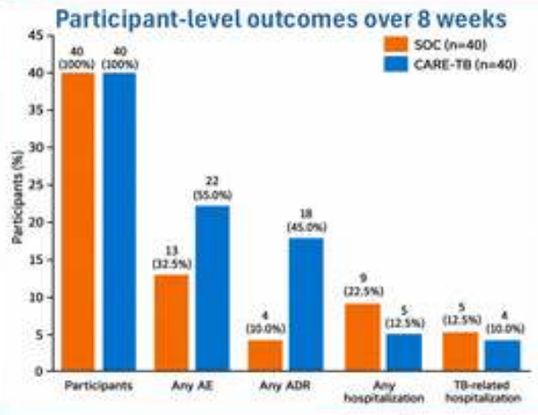
Proportion of participants achieving ≥80% observed doses



Adjusted RR
1.55
(95% CI 1.12-2.15)
p=0.008
NNT = 4
(RR, risk ratio; NNT, number needed to treat)

B. Adverse drug reactions: CARE-TB vs SOC

Participant-level outcomes over 8 weeks



ADRs 45% vs 10%
RR 4.5 (95% CI 1.67-12.12; p<0.001)

Hospitalization
12.5% vs 22.5% (p>0.05)

21% regimen withheld/change
6/28 overall ADR in both arms

Dermatological ADRs common
11 vs 3; only 1 out of 11 in CARE-TB required hospitalization

C. WHO TB outcomes

Treatment success by arm
ITT and evaluable WHO outcomes

+15.0 pp
ITT advantage CARE-TB vs SOC

+19.2 pp
Among evaluable WHO outcomes

Crude RR 1.28; p=0.08

Exploratory finding: CARE-TB showed numerically higher treatment success, although not statistically significant; **Early observed-dose** adherence is **plausible pathway to clinical benefit.**

D. Implementation outcomes

PWTB acceptability (AIM), appropriateness (IAM), feasibility (FIM)



PWTB: Acceptability remained high, appropriateness/fit and feasibility improved over time

Provider: CARE-TB was acceptable and appropriate, but feasibility was constrained by workload and staffing.
mean 9.2 videos/day
>95% reviewed on time
within 24h / next working day

aVOT Quality

Fully verifiable: 62.5% (25/40)
≥1 limitation: 37.5% (15/40)
e.g. mouth check visibility & pill visibility

Missed aVOT reasons

Qualitative findings: **PWTB** experienced CARE-TB **as supportive accountability rather than surveillance,** but equitable implementation requires attention to **device access, connectivity, digital literacy, caregiver support, and privacy.**

"It is like I am taking the medicine every day for you all to see, and that becomes a responsibility."

Qualitative findings: **Providers** valued **adherence visibility and supportive care,** but raised concerns about **workload, verification, documentation, escalation pathways, and institutional ownership.**

"...it becomes a channel for hand-holding patients"

"Is it just looking at videos? Customer service? What are the boundaries?"

CONCLUSION

CARE-TB **improved early TB treatment adherence** compared with SOC, was **acceptable** and **feasible** to implement with high fidelity, and **strengthened ADR surveillance**. Scale-up requires stronger workflow integration, task-sharing, and institutional ownership.

Funding: Universiti Malaya Research Excellence Grant (UMREG016_2024) and the NIH Fogarty International Center (D43TW011324).

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Prevalence of Liver Fibrosis Based on FIB-4 Index and Transient Elastography in HIV Mono-infected Patients and its Associated Risk Factors

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Petrick Periyasamy, Xiong Khee Cheong, Ummu Afeera Zainulabid, Najma Kori, Shamsul Azhar Shah
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5TH NATIONAL AIDS CONFERENCE 2026
NAC26 EP021
TRACK A · CLINICAL

Prevalence of Liver Fibrosis Based on FIB-4 Index and Transient Elastography in HIV Mono-infected Patients and its Associated Risk Factors

Azar Khairul Shazwan
Petrick Periyasamy, Xiong Khee Cheong, Ummu Afeera Zainulabid, Najma Kori, Shamsul Azhar Shah
Hospital Canselor Tuanku Muhriz UKM

133
participants

19.5%
fibrosis by FIB-4

42.9%
with NAFLD

BACKGROUND AND OBJECTIVES

Liver disease has become an important non-AIDS-related comorbidity among people living with HIV (PLWH) in the modern antiretroviral therapy (ART) era. However, data on liver fibrosis and non-alcoholic fatty liver disease (NAFLD) among HIV mono-infected patients in Malaysia remain limited. This study determined the prevalence of liver fibrosis using the FIB-4 index and transient elastography (TE), the prevalence of NAFLD using TE, associated risk factors, and the relationship between liver fibrosis and atherosclerotic cardiovascular disease (ASCVD).

METHODS

A cross-sectional study was conducted between 2024 and 2025 at a teaching hospital in Kuala Lumpur, Malaysia. Adult HIV mono-infected patients underwent clinical assessment, laboratory testing, FIB-4 calculation, and TE. Significant fibrosis was defined as a FIB-4 index >1.3 or liver stiffness measurement (LSM) ≥7 kPa, while NAFLD was defined as a controlled attenuation parameter >248 dB/m. Logistic regression was used to identify factors associated with significant fibrosis.

RESULTS

Among 133 participants (mean age 43.8 ± 11.1 years; 90.2% male), significant liver fibrosis was identified in 19.5% by FIB-4 and 15.0% by TE. NAFLD was present in 42.9% of participants. Increasing age, hypertension, dyslipidaemia, and integrase strand transfer inhibitor (INSTI)-based ART were associated with fibrosis in univariate analysis. After adjustment, INSTI-based ART remained independently associated with significant fibrosis (adjusted OR 5.1, 95% CI 1.77–14.68; p = 0.003). Liver fibrosis was also associated with increased odds of ASCVD (OR 9.17, 95% CI 1.88–44.7; p = 0.018).

CONCLUSION

Liver fibrosis and NAFLD are common among HIV mono-infected patients in Malaysia. Routine fibrosis screening and metabolic risk assessment should be integrated into the long-term care of PLWH.

NAC26 EP022

Clinical Characteristics and Outcomes of Hospitalized People Living With HIV Admitted to a Tertiary Hospital in Sarawak: A 12-Month Observational Study

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Thung Su Fui, Chua Hock Hin
Sarawak General Hospital

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Clinical Characteristics and Outcomes of Hospitalized People Living With HIV Admitted to a Tertiary Hospital in Sarawak: A 12-Month Observational Study

Authors: Churn Pei Chiar, Thung Su Fui, Chua Hock Hin
Department of Medicine, Sarawak General Hospital

INTRODUCTION

Despite the advances in antiretroviral therapy (ART) and global efforts toward the UNAIDS 2030 targets[1,2], HIV remains an important public health challenge in Malaysia[1]. Understanding local epidemiology and clinical patterns- particularly among key population demographics[4] is essential for developing targeted interventions and improving outcomes among people living with HIV (PLWH)[1,3].

OBJECTIVES

To describe the demographic characteristics, risk factors, clinical presentations, ART status and immunological status, outcomes and mortality among PLWH admitted to a tertiary hospital in Sarawak

METHODOLOGY

Study design: 12-month observational study (Jan - Dec 2025)
Setting: Infectious Disease ward, Sarawak General Hospital
Study population: Hospitalised PLWH

Variables analysed: Demographic characteristics • Risk factors • ART status • CD4 count • Clinical presentations • Mortality outcomes

RESULTS

93	83.9%	83.9%	10.8%
PLHIV admitted	Not receiving ART	CD4 <200 cells/µL	Overall mortality

Cohort Profile

- Male: 93.5% (n=87)
- Age 21–40 years: 67.7% (n=63)
- Sexual transmission: 92.5% (n=86)
- MSM: 72.0% (n=67)
- Multiple admissions: 17.2% (n=16)

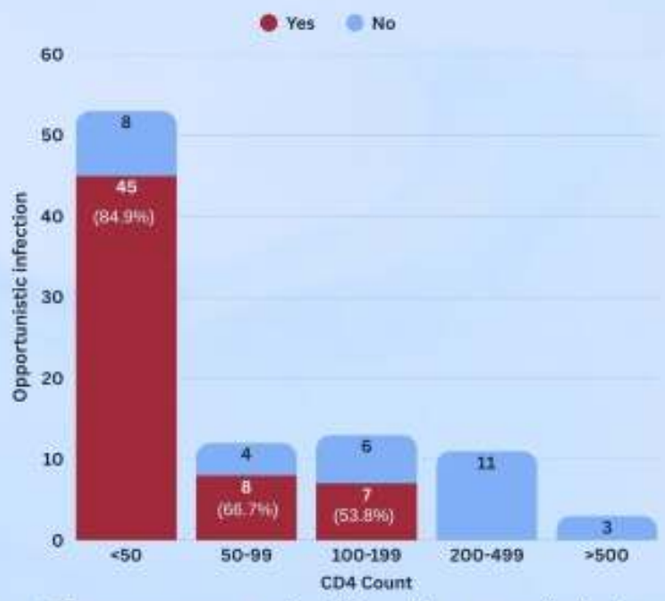
- 83.9% (n=78) CD4 counts <200 cells/µL
- 51.6% (n=48) having CD4 counts <50 cells/µL

ART Status on Admission

- 49.5% newly diagnosed
- 34.4% defaulted treatment
- 16.1% receiving ART

Opportunistic Infections (OI) by CD4 Count

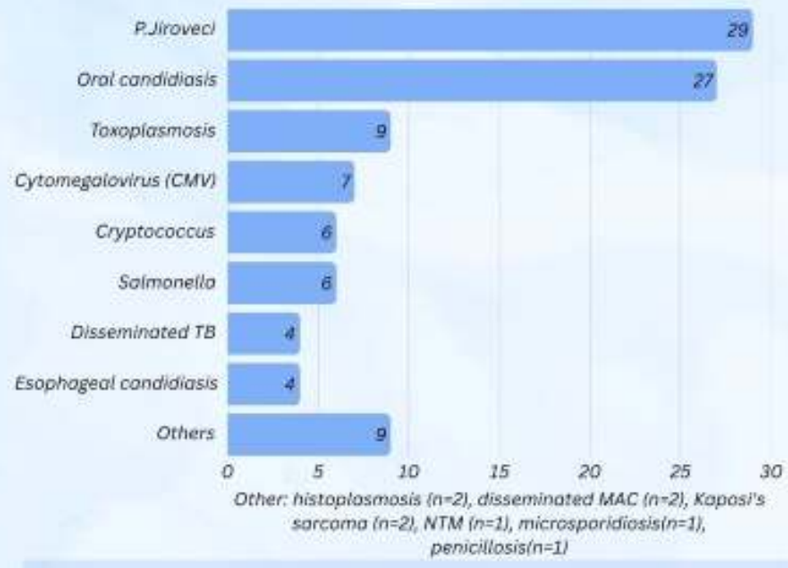
Figure 1



- OI occurrence significantly associated with lower CD4 count (p<0.001)
- No OIs occurred among patients with CD4 ≥200 cells/µL

Spectrum of Opportunistic Infection

Figure 2



Other: histoplasmosis (n=2), disseminated MAC (n=2), Kaposi's sarcoma (n=2), NTM (n=1), microsporidiosis(n=1), penicillosis(n=1)

Mortality

- 10.8% (n=10)
- All deaths occurred among treatment-naïve patients or those who had discontinued ART
- CD4 at death: 9–125 cells/µL

DISCUSSION

1. **Advanced disease -** The high prevalence of severe immunosuppression and OIs suggests substantial late presentation and delayed engagement with HIV care[3,5].
2. **ART Gap -** The high proportion not receiving ART reflects both late diagnosis and treatment interruption, highlighting gaps in HIV testing, timely ART initiation and retention in care[1,5].
3. **OI burden -** The strong association between low CD4 count and OIs demonstrates the continuing burden of HIV-related morbidity among patients presenting with advanced disease[3,6].
4. **Mortality -** Deaths occurred exclusively among patients who were treatment-naïve or had discontinued ART, highlighting potentially modifiable gaps in treatment continuity[3,5].

CONCLUSION

Hospitalized PLWH in Sarawak frequently present with advanced immunosuppression, opportunistic infections and treatment gaps.

Strengthening early HIV diagnosis, prompt ART initiation and retention in care—particularly among young MSM—and improving treatment-default retrieval may reduce preventable morbidity and mortality.

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NAC26 EP023

Serum Creatinine Changes Following Transition to Dolutegravir Regimen in Stable HIV Patients at Hospital Sungai Buloh

Lalithambigai Jayaraman
Preethi Raghavan, Farah Syakirah Ahmad, Shreeni Mailvaganam Pillai
Hospital Sungai Buloh

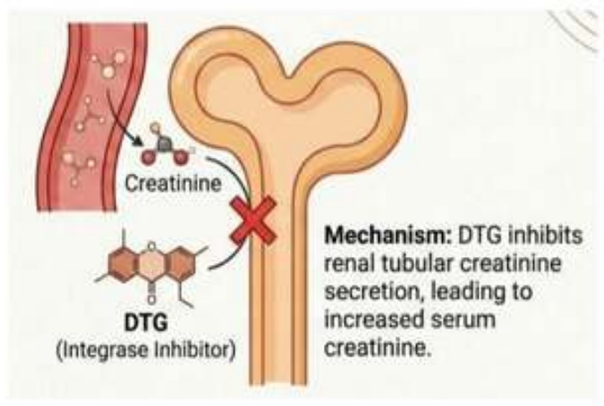
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Serum Creatinine Changes Following Transition to Dolutegravir Regimen in Stable HIV Patients at Hospital Sungai Buloh

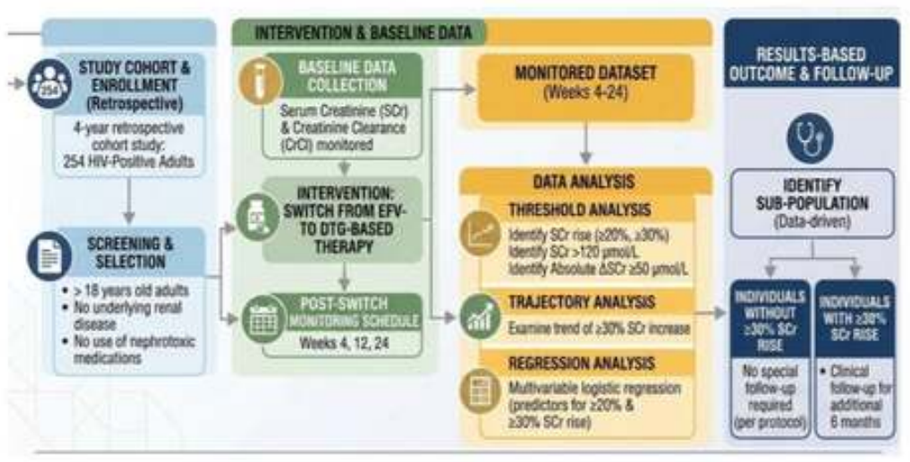
Preethi Raghavan [1], Lalithambigai Jayaraman[1], Farah Syakirah Ahmad[1], Shreeni Mailvaganam Pillai [1], Suresh Chidambaran[1]
[1]Hospital Sungai Buloh, Malaysia
NMRR-ID-25-02529-YXR

Background

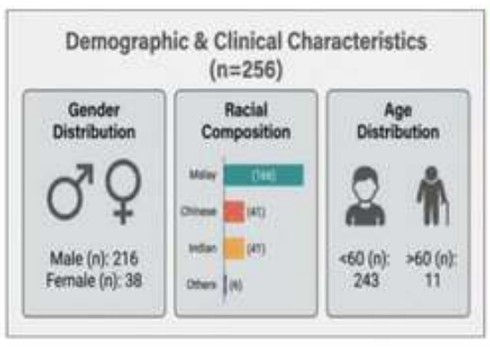
Dolutegravir (DTG) can cause a benign rise in serum creatinine (SCr) by inhibiting renal tubular secretion, often causing unnecessary clinical concern primarily possibilities of changing an effective HAART regime. This retrospective study quantifies this effect, identifies contributing factors, and outlines methods to distinguish it from true renal injury.

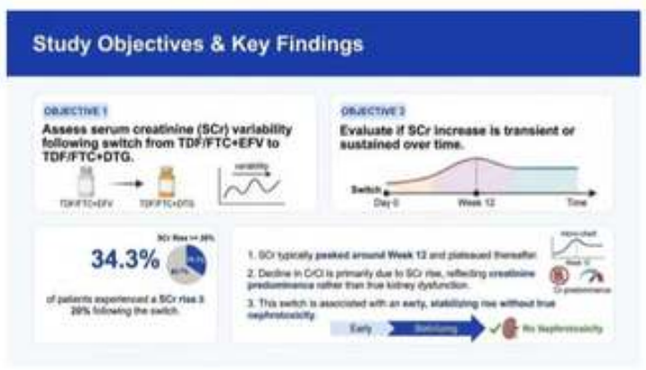


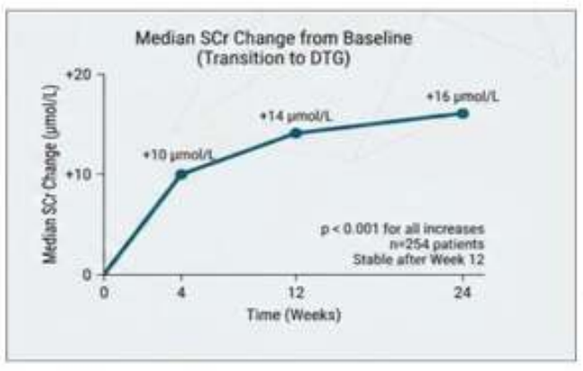
Method



Results & Discussion

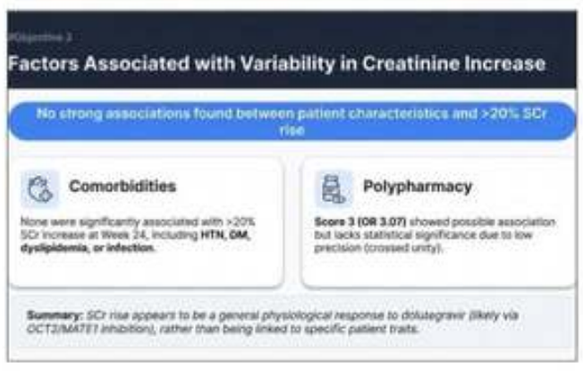


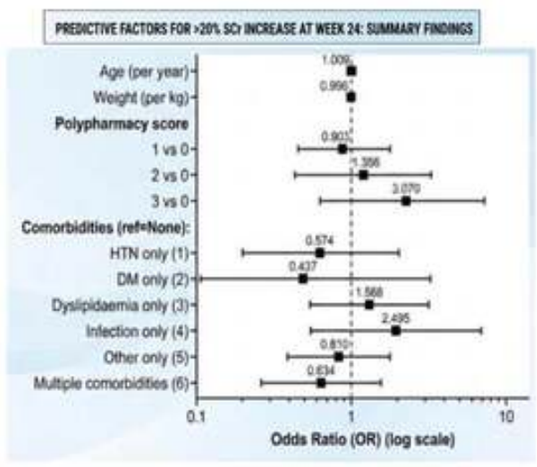


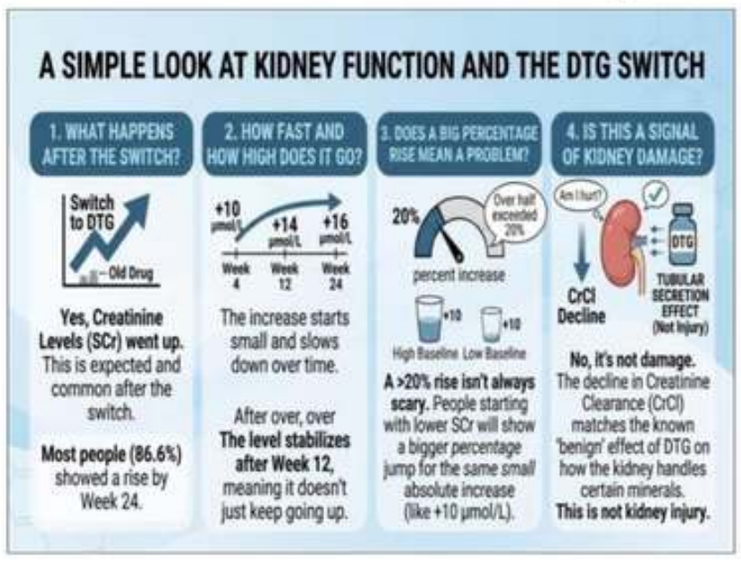




This significant rise was linked to lower baseline SCr. 65.5 % patients with a ≥30% increase plateaued after Week 12,

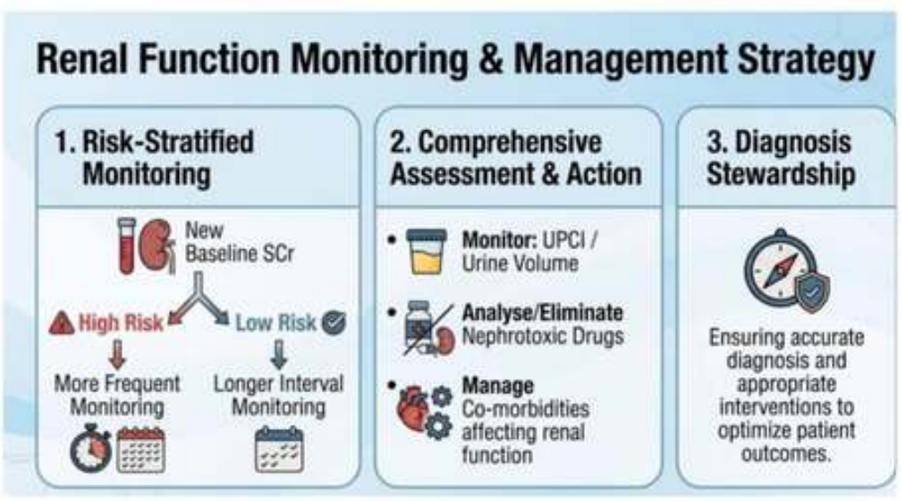




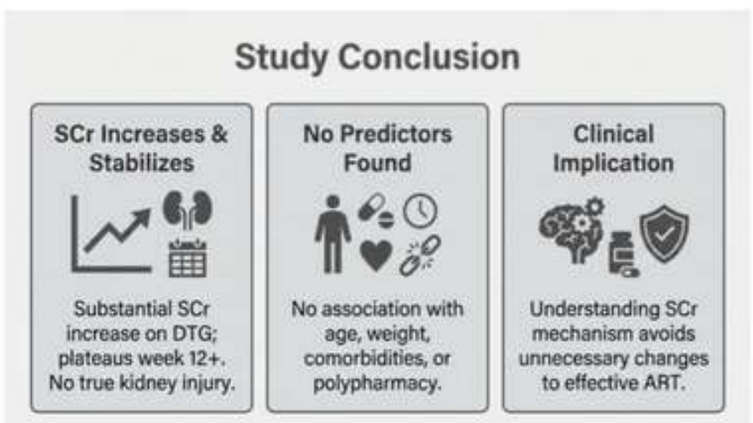


Implication & significance of this study

Distinguishing benign DTG-induced creatinine spikes from actual kidney damage is diagnostically challenging. A pragmatic approach involves establishing a post-treatment SCr baseline and performing UPCI surveillance every three to six months for high-risk patients. This systematic risk stratification allows for customized, targeted renal monitoring.



Conclusion



Study limitation

1. Creatinine clearance (CrCl) relies on body weight (BW), and since Dolutegravir (DTG) impacts body weight, a more precise CrCl reading requires analyzing pre- and post-DTG body weight.
2. In this study, the backbone regimen of Tenofovir/Emtricitabine was kept constant when switching from Efavirenz to DTG. Different DTG combinations might yield more variability in the observed pattern of serum creatinine (Scr) increase.

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NAC26 EP024

The Rash That Marched: Disseminated Zoster in AIDS – A Case Report

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THE RASH THAT MARCHED: DISSEMINATED HERPES ZOSTER IN ADVANCED HIV

A CASE REPORT

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INTRODUCTION

Herpes Zoster reactivation is a high frequency opportunistic event in advanced HIV patients (CD4 < 200 cells/mm³). Disseminated zoster – defined as the involvement of 3 or more non-contiguous dermatomes, or > 20 extra-dermatomal lesions – carries significant risk of visceral or neurological complications. This case report illustrates how a shingles diagnosis escalated into widespread disseminated disease, emphasizing the critical importance of meticulous physical evaluation.

CASE REPORT



26-year-old Malay gentleman, recently started HAART.

BASELINE LABS: (3 months ago)
CD4 count: 129 cells/mm³,
Viral Load: 22,600 copies/mL

Day 1: Initial Presentation



Patient prescribed Oral Acyclovir 800mg (5x/day, 5 days)

Day 5: Follow-up



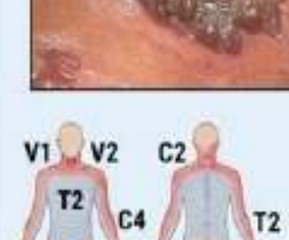
SUBJECTIVE REPORT (Patient): "Rash is drying up" & improving

A Clinical Trap:

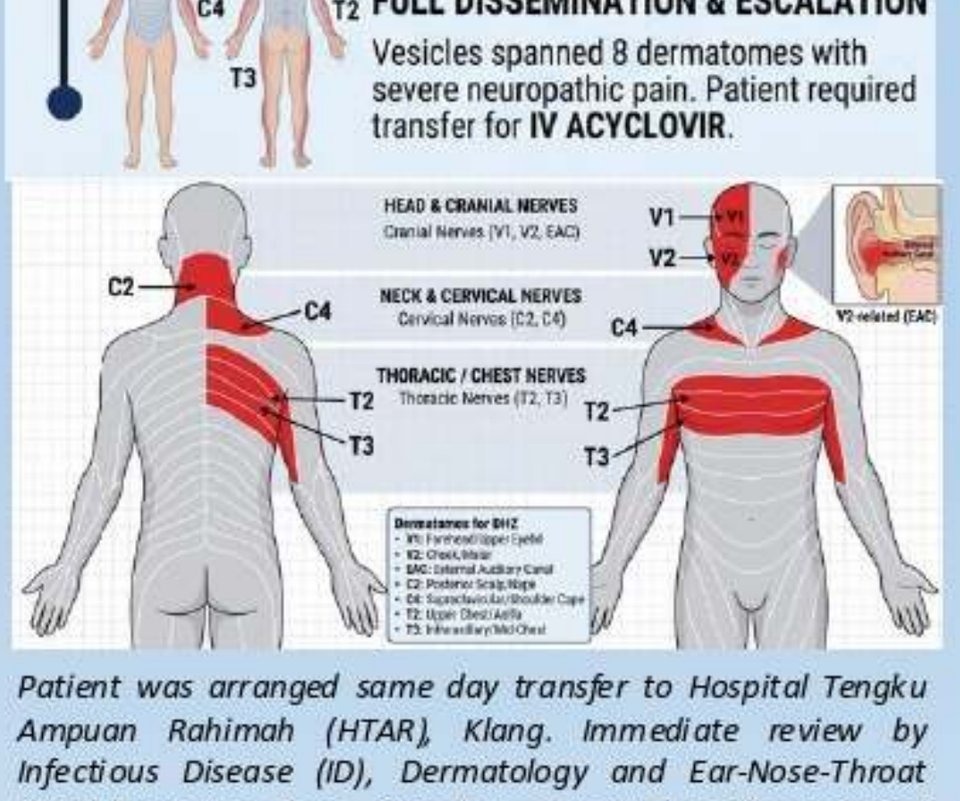
OBJECTIVE EXAMINATION (Clinician): Insidious progression to new areas & active replication.







FULL DISSEMINATION & ESCALATION
Vesicles spanned 8 dermatomes with severe neuropathic pain. Patient required transfer for **IV ACYCLOVIR**.



Patient was arranged same day transfer to Hospital Tengku Ampuan Rahimah (HTAR), Klang. Immediate review by Infectious Disease (ID), Dermatology and Ear-Nose-Throat (ENT) team was done. Patient was treated as Disseminated Herpes Zoster unlikely Ramsay Hunt Syndrome with IV Acyclovir and was discharged well.

DISCUSSION

Oral Antiviral Failure
Standard 5-day oral regimens are inadequate.
Guidelines recommend min 7-10 days or IV for DHZ.

1. ***Acute, localized dermatomal zoster:*** *Preferred treatment of T Acyclovir 800mg 5x/day for at least 7 to 10 day course.*
2. ***Disseminated disease:*** *IV Acyclovir → may switch to oral once new symptoms stop forming, to complete for 10 to 14 day course.*

Additional points:
- *Presence of Zoster is not a reason to defer or stop antiretroviral therapy*
- *All patients need eye examination to detect Ophthalmic Zoster early*
- *Acyclovir resistance should be suspected if no improvement by day 7*
- *To vaccinate with Recombinant Zoster vaccine after acute episode resolves*

Maintain High Clinical Suspicion
Primary lesion crusting can mask active replication.
Physical examination must ALWAYS supersede patient self-reporting.

Immune Reconstitution Inflammatory Syndrome (IRIS)
Onset 3 months after starting HAART, strongly suggesting IRIS.

The outbreak occurring 3 months post ART initiation indicated IRIS, where recovering T-cells spark a hyper-inflammatory response to latent viral antigens

Inadequate Pain Management
Severe neuopathic pain affecting sleep requires gabapentinoids and tricyclics.

Maintain Low Threshold for IV Acyclovir
In advanced HIV, aggressively monitor for neurological complications and do not rely on standard oral therapy for extensive or severe cases.

CONCLUSION

High-Acuity Condition*: Disseminated Herpes Zoster in Advanced HIV is a medical emergency requiring high clinical suspicion, low thresholds for IV acyclovir, and comprehensive screening for organ involvement.*

Role of Primary Care: *Family Medicine Specialists serve as the crucial line of defence in identifying early dissemination behind deceivingly "improving" primary lesions.*

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NAC26 EP027

Factors Associated with Virological Failure among People Living with HIV

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Ng Tiang Koi, Nor Arisah Misnan, Farida Hanim Islahudin, Mohd Makmor-Bakry
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5th NATIONAL AIDS CONFERENCE | Better Prevention • Better Treatment • A Healthier Future

Factors Associated with Virological Failure among People Living with HIV

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HOSPITAL TENGKU AMPUAN RAHIMAH KLANG

1. INTRODUCTION & BACKGROUND

Antiretroviral therapy (ART) has revolutionized HIV care, but treatment failure remains a significant challenge, driving clinical deterioration and high medical costs. The World Health Organization (WHO) defines virological failure as a viral load ≥ 1,000 copies/mL, which serves as the earliest and most informative biomarker of treatment failure. Immunological or clinical failure criteria are often slow and lack sensitivity, misclassifying nearly 50% of patients. Early identification of individual-level sociodemographic and clinical predictors is essential to design targeted interventions, maximize viral suppression, and prevent the transmission of drug-resistant strains. This multicentre study was conducted in Malaysia to identify the primary predictors associated with virological failure.

2. STUDY OBJECTIVES

To determine the sociodemographic, disease-related, and treatment-specific factors associated with virological (treatment) failure among people living with HIV (PLHIV) on antiretroviral therapy in Malaysia.

3. METHODOLOGY

Study Design
Multicentre retrospective cohort study (2010 – 2020).

Study Settings
Hospital Sungai Buloh (ID Centre of Malaysia) and Hospital Tuanku Ja'afar Seremban (tertiary referral centre).

Sampling & Inclusion
Simple random sampling of adults (≥18 years) who initiated ART between 2010 – 2020.

Sample Size Determination
Peduzzi et al. (1996): n = 10k/p (5 predictors, 0.18 failure proportion) → **278**. With 10% buffer for missing data = **306**. Total recruited: 355.

Statistical Analysis
Univariable and multivariate logistic regressions using SPSS v27. Adjusted Odds Ratios (AOR) with 95% CI. Significance at $p < 0.05$.

Early identification of risk factors allows targeted interventions, maximizes viral suppression and prevents transmission of drug-resistant strains.

4. COHORT CHARACTERISTICS (N = 355)

Characteristic	Treatment Failure (n=92)	Treatment Success (n=263)	Total (n=355)	p-value
Gender (Male)	84 (91.3%)	227 (86.3%)	311 (87.6%)	0.211
Social Support (Yes)	68 (73.1%)	241 (91.6%)	309 (87.0%)	<0.001
History of Non-Adherence (Yes)	84 (91.3%)	75 (28.5%)	159 (44.8%)	<0.001
Use of Reminders (Yes)	15 (16.3%)	183 (69.6%)	198 (55.8%)	<0.001
History of LTFU (Yes)	56 (60.9%)	13 (4.9%)	69 (19.4%)	<0.001
History of OIs (Yes)	64 (69.6%)	93 (35.4%)	198 (55.8%)	<0.001
IPT (Yes)	10 (10.9%)	110 (41.8%)	120 (33.8%)	<0.001
Duration on ART (years, mean ± SD)	8.65 ± 3.64	6.12 ± 3.24	6.77 ± 3.52	<0.001

Table 1: Demographic and clinical comparison of Treatment Failure and Treatment Success groups, showing frequencies and percentages.

KEY COHORT FINDINGS

Male 87.6% (311/355)

Malay 55.2% (196/355)

Mean duration on ART 6.77 years (±3.52)

25.9% Treatment Failure (92/355)

Key Risk Factors (more common in failure group)
- Non-adherence
- LTFU
- History of OIs
- No reminders
- No IPT
- Poor social support

5. MULTIVARIATE LOGISTIC REGRESSION

Significant Predictor	Coefficient (B)	Adjusted OR (95% CI)	Wald	p-value
Gender: Male vs Female	1.56	4.77 (1.27 - 18.00)	5.34	0.021
Social Support: Yes vs No	-1.39	0.25 (0.08 - 0.78)	5.74	0.017
History of Non-Adherence: Yes vs No	2.20	9.01 (3.23 - 25.13)	17.63	<0.001
Use of Reminders: Yes vs No	-2.22	0.11 (0.05 - 0.26)	24.95	<0.001
History of LTFU: Yes vs No	1.80	6.04 (2.34 - 15.59)	13.81	<0.001
History of OIs: Yes vs No	0.89	2.44 (1.10 - 5.42)	4.76	0.029
IPT: Yes vs No	-1.81	0.16 (0.06 - 0.43)	13.32	<0.001
Duration of ART: per year	0.17	1.20 (1.07 - 1.34)	10.56	0.001

Table 2: Multivariable predictors showing regression coefficients (B), Adjusted Odds Ratios (AOR) with 95% CIs, Wald statistics, and p-values.

6. FOREST PLOT OF ASSOCIATED RISK FACTORS

Predictor	AOR (95% CI)	p-value
Male gender vs Female	4.77 (1.27 – 18.00)	0.021
Social support Yes vs No	0.25 (0.08 – 0.78)	0.017
Non-adherence Yes vs No	9.01 (3.23 – 25.13)	<0.001
Reminders Yes vs No	0.11 (0.05 – 0.26)	<0.001
LTFU Yes vs No	6.04 (2.34 – 15.59)	<0.001
OIs Yes vs No	2.44 (1.10 – 5.42)	0.029
IPT Yes vs No	0.16 (0.06 – 0.43)	<0.001



Figure 1: *Adjusted Odds Ratios (AOR) of statistically significant predictors (logarithmic scale) showing high-risk (AOR > 1) and protective (AOR < 1) factors.*

7. CLINICAL DISCUSSION

- Non-adherence (AOR 9.01) and LTFU (AOR 6.04) were the strongest predictors of virological failure.
- Male gender (AOR 4.77), history of OIs (AOR 2.44) were associated with higher risk.
- Use of reminders (AOR 0.11), IPT (AOR 0.16) and social support (AOR 0.25) were protective factors.
- These findings highlight the need for adherence support, retention strategies and management of OIs, along with strengthening social support and IPT provision.

8. RECOMMENDATIONS & CONCLUSION

- Strengthen adherence counselling and reminder systems.
- Enhance retention in care (reduce LTFU).
- Improve social support mechanisms.
- Ensure IPT and OI prevention and management.
- Targeted interventions for high-risk groups (e.g. males).

Multidisciplinary and patient-centred strategies are essential to improve virological outcomes among PLHIV.

9. ETHICS & REFERENCES

- **Ethical approval:** [as per study setting]
- **References:**

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2. Peduzzi et al. (1996). A simulation study of the number of events per variable in logistic regression analysis. *J Clin Epidemiol*; 49(12):1373–1379.

Ending AIDS Together

5th National AIDS Conference

NAC26 EP031

The association between the use of chem-sex, antiretroviral therapy adherence and lost-to-follow-up among people living with HIV.

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Hospital Tengku Ampuan Rahimah Klang

THE ASSOCIATION OF THE USE OF CHEM-SEX, ADHERENCE OF ANTIRETROVIRAL THERAPY AND LOST-TO-FOLLOW-UP AMONG PEOPLE LIVING WITH HIV.

NMRR: ID-22-02618-MAB (IIR)
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INTRODUCTION

Chem-sex or chem-fun, defined as the use of substances to enhance sexual activities, has emerged as a growing concern in HIV treatment owing to its potential effects on adherence to antiretroviral medication (ART) and patient's lost-to-follow-up (LTFU) [1,2].

Engaging in chem-sex can lead to drug interactions, overdose, serious short and long term impact including chronic depression, anxiety, weight loss, paranoia and psychosis [3, 4].

Different regions and countries show different factors and types of chem-sex used. Limited data & the need for local studies to further investigate the use of chem-sex and its association with ART adherence and LTFU.

OBJECTIVES

To determine the association between chem-sex and adherence

To determine the association between chem-sex and LTFU

To determine associated factors of the use of chem-sex among PLHIV

METHODS

Study Settings & Design

- Retrospective cohort study
- Multicentre study:
  - Hospital Sungai Buloh
  - Hospital Tuanku Ja'afar Seremban

Study Population

- PLHIV started ART

Sample Size Calculation

The sample size was calculated using formula suggested by Peduzzi et al. 1996 for association analysis = **278** (considering 10% of the missing data)

Sampling Method

- Simple random sampling using SPSS generator
- Inclusion criteria:
  - Adult PLHIV
  - Started ART
- Exclusion citeria:
  - Incomplete data
  - PLHIV transferred in from other facilities

Data Collection Method

- Medical records review
- Using data from 2010 until 2023
- Data collection:
  - Patient's demographic
  - Adherence assessment (>95% adherence level)
  - LTFU (the absence of follow-up for > 3 months since their last follow-up schedule)

Statistical Analysis

- Association between chem-sex with adherence LTFU: univariable analysis
- Associated factors of the use of chem-sex: multivariable analysis

RESULTS

Patients' Demographic (N = 355)

AGE 43.08 (10.7) years
311 (87.6%)
196 (55.2%)
298 (83.9%)
221 (62.3%)
182 (51.3%)

Chem-sex among PLHIV = 54 (15.2%)

Methamphetamine = 35 (64.8%) | Ketamine = 17 (31.4%) | Others = 2 (3.8%)

Objective 1 & 2

Variables		OR (95% CI)	p value
Non-adherence			
	No	Ref	-
	Yes	1.99 (1.10 - 3.59)	0.022
LTFU			
	No	Ref	-
	Yes	3.02 (1.60 -5.68)	< 0.001

Objective 3

Variables		Univariate Logistic Regression		Multivariate Logistic Regression	
		OR(95% CI)	p value	aOR(95% CI)	p value
Smoking status					
	No	Ref	-	Ref	-
	Yes	3.99 (2.18 – 7.29)	< 0.001	3.46(1.86 – 6.44)	0.004
Sexual transmitted infections (STIs)					
	No	Ref	-	Ref	-
	Yes	2.67(1.48 – 4.81)	0.001	2.94(1.57 – 5.52)	< 0.001
History of missed appointments					
	No	Ref	-	Ref	-
	Yes	2.53(1.39 – 4.56)	0.002	2.50(1.33 – 4.72)	< 0.001

DISCUSSION

- ✓ The use of chem-sex among PLHIV (15.2%) was comparable to 13% regional average in East and South Asia [1] & 18.6% in Philippines [2].
- ✓ The most common drugs used was methamphetamine. This finding in line with other studies conducted in Philippines [2] & Asian population [3].
- ✓ PLHIV engaged with chem-sex had 1.99 risk of ART non-adherence, higher than systematic review findings ((OR 1.96, 95%CI 0.52–7.31, p=0.009) [4].
- ✓ The risk of LTFU among chem-sex users possibly due to drug intoxification and hospital admissions [5].
- ✓ STIs is frequently associated with factors among PLHIV involved in chem-sex [5, 6].
- ✓ Other associated factors with chem-sex users were age, participation in group sex, recent injection drug use and PrEP use in a lifetime [6].
- ✓ **Limitations** of the study:
  - retrospective nature of the study
  - self-reported adherence which may overestimate adherence level
  - inter-rater variability aong data collectors

CONCLUSION

PLHIV who engaged with chem-sex had higher risk of non-adherence to ART and LTFU.

A significant associations were found between the use of chem-sex, smoking status, STIs and history of missed appointments.

Health education for PLHIV engaged in chemsex should prioritize raising awareness on ART adherence and risk of drug intoxication, along with proper medical management.

Future studies:
Prospective study focus on chem-sex, drug intoxification and drug-drug interactions.

ACKNOWLEDGEMENT

- Director General of Health Malaysia for the permission to present this poster
- Hospital Director & Pharmacy Department of Hospital Tengku Ampuan Rahimah Klang
- Medical & Pharmacy Department of Hospital Sungai Buloh
- Medical & Pharmacy Department of Hospital Tuanku Ja'afar Seremban

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NAC26 EP032

Improving Tuberculosis Preventive Therapy Implementation Among Newly Diagnosed People Living with HIV: A Quality Improvement Project

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NAC26EP032

Improving Tuberculosis Preventive Therapy Implementation Among Newly Diagnosed People Living with HIV: A Quality Improvement Project

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INTRODUCTION

Tuberculosis (TB) remains the leading opportunistic infection and a major cause of mortality among people living with HIV (PLHIV). Although Tuberculosis Preventive Therapy (TPT) is recommended for eligible PLHIV, implementation remains inconsistent due to gaps in screening, documentation and clinical workflow. A baseline audit at Hospital Tengku Permaisuri Norashikin Kajang identified suboptimal TPT implementation.

OBJECTIVES

To improve implementation of TPT among newly diagnosed PLHIV by strengthening TB screening, documented TPT counselling, timely TPT initiation and maintaining a low rate of treatment-limiting adverse events.

METHODOLOGY

DESIGN
Single-centre before-and-after quality-improvement project using Plan–Do–Study–Act (PDSA) methodology.

SETTING & PERIOD
HTPN Kajang, January 2024–June 2026; outcomes assessed across five six-monthly audit cohorts.

ELIGIBILITY
Newly diagnosed PLHIV with active TB excluded and no contraindication to TPT.

MULTIFACETED INTERVENTION
1. Healthcare-worker education
2. Standardised TB/TPT checklist
3. Clinical flowchart
4. Patient-counselling flipchart
5. Regular audit and feedback

CAUSE AND EFFECT DIAGRAM
Factors contributing to suboptimal implementation of Tuberculosis Preventive Therapy (TPT) in PLHIV

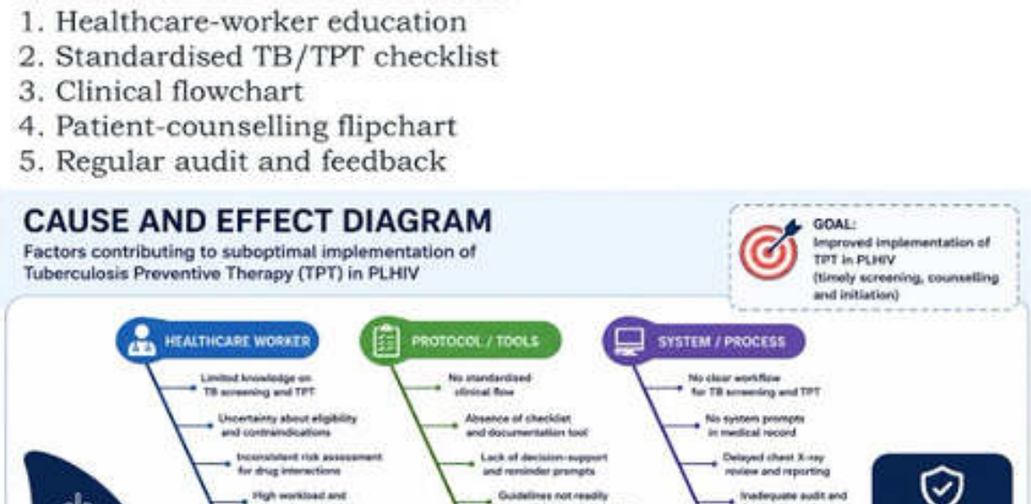


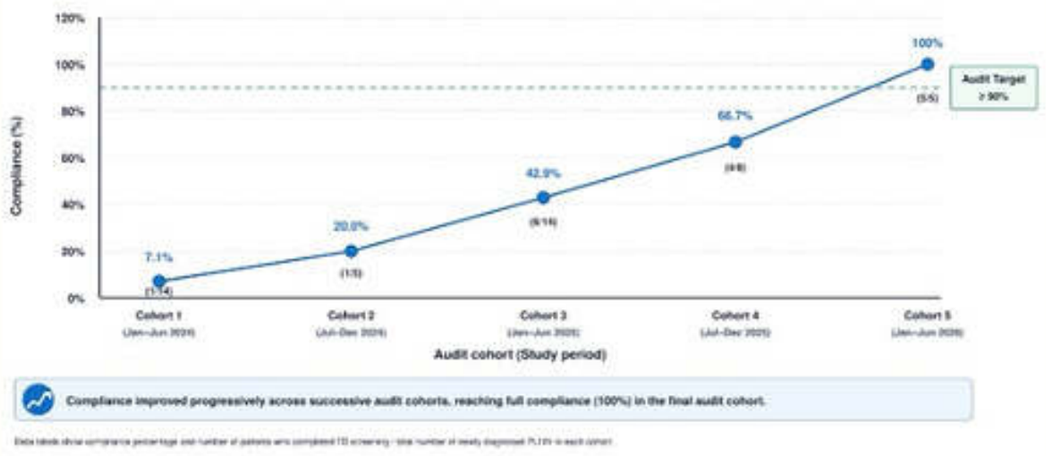
FIGURE 1 : Revised clinical flowchart available in the Flipchart

RESULTS

Of 48 newly diagnosed PLHIV assessed, 44 were included in the analysis. TB screening compliance improved from 7.1% in Cohort 1 to 100% in Cohort 5. Among eligible patients, documented TPT counselling and TPT initiation within two months improved from 20.0% to 100%, achieving the predefined audit target. Thirteen patients commenced TPT; 11 (84.6%) completed treatment, one remained on treatment and one discontinued due to adverse effects (7.7%).
A total of 34 Medical Officers (MO) attended the training sessions however paired pre and post training analysis was only available for 22 MO. The mean knowledge score improved from 5.2/11 before the educational intervention to 7.0/11 after training, representing a mean improvement of 1.73 points. Overall, 17 participants (77.3%) demonstrated improved post-training scores, three (13.6%) showed no change, and two (9.1%) demonstrated lower post-training scores.

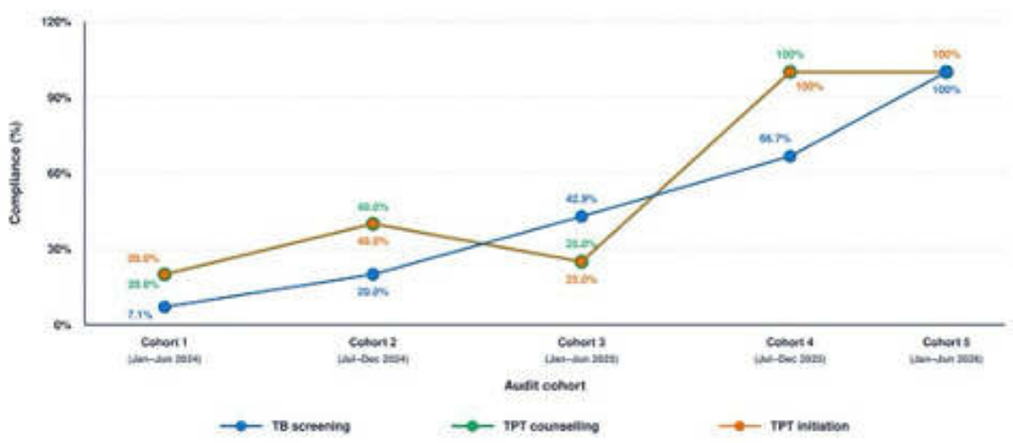
Improvement in TB screening compliance across audit cohorts

Compliance with WHO four-symptom TB screening and baseline chest radiograph review among newly diagnosed PLHIV during the quality improvement project.



Quality indicator performance across audit cohorts

Trends in TB screening, TPT counselling, and TPT initiation from January 2024 to June 2026.



CONCLUSIONS

A multifaceted quality improvement intervention substantially improved TPT implementation among newly diagnosed PLHIV, achieving 100% compliance with TB screening, TPT counselling and TPT initiation in the final audit cohort while maintaining an acceptable safety profile. These interventions are simple, practical and may serve as a model for improving TPT implementation in other HIV treatment centres.

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Persistent HIV Antibody Seronegativity in Critically ill Patient with Advanced HIV Infection

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Hospital Miri

Persistent HIV Antibody Seronegativity in a Critically ill Patient with Advanced HIV Infection

HOSPITAL MIRI

Kavisneha Gobala Krishnan, Lim Guat Yee, Chong Wun Khang, Chu Lee Hwa, Aimi Ayunie, Tonnii Sia



1. INTRODUCTION

- Diagnostic screening for HIV relies heavily on fourth-generation antigen/antibody (Ag/Ab) assays.
- However, uncommon instances of seronegative HIV infection can mask the diagnosis, leading to severe clinical progression and acute seroconversion.

2. OBJECTIVE

This case report describes a 20-year-old man who presented with symptoms consistent with acute HIV seroconversion and subsequently remained seronegative for more than 22 months despite antiretroviral therapy and sustained viral suppression.

3. CASE DESCRIPTION / METHODOLOGY

Patient
- 20 years old male with underlying hepatitis B

Risk Factors
- Multiple sexual partners
- Denied illicit drug use or tattooing

Symptoms (2 weeks)
- Fever, chills, rash, significant weight loss (68 kg → 51 kg)

Clinic Examination
- Temperature: 37.9°C
- Blood pressure: 108/68 mmHg
- Pulse rate: 138/min
- Respiratory rate: 22/min
- Oxygen saturation: 99% (ambient air)
- Oral thrush noted
- No remarkable findings in cardiovascular, lung, abdominal and neurological examinations
- Macular skin lesions over chest, abdomen, bilateral upper and lower limbs.

Endoscopy
- Grade E esophagitis,
- H. pylori associated gastritis

Treatment
- Management for past HBV infection
- Treated for suspected CMV & HSV co-infections
- Initiated HAART
- Achieved viral suppression (<20 copies/mL) with clinical improvement

4. DIAGNOSTIC TIMELINE



Test / Date	3/6/24	19/6/24	10/7/24	16/8/24	21/8/24	17/2/25	12/8/25	2/2/26
HIV Rapid test	NR	NR	NR	NR	-	NR	NR	NR
HIV Ab/Ag	Reactive	Reactive	Reactive	Non reactive	-	Non reactive	Non reactive	Non reactive
HIV PA	Not detected	Not detected	Not detected	Not detected	-	Not detected	Not detected	Not detected
HIV VL	-	-	1751925	-	37700	78	49	<20
CD4	-	-	37	-	-	521	543	632

5. DISCUSSION

- Seronegative HIV infection is uncommon.
- Early HIV treatment potentially led to non-seroconversion. [1]
- HIV VL is needed prior to initiation of HIV treatment, therefore, HIV VL testing should be made available in all hospitals with specialists in Sarawak.

Limitations

- p24 antigen may help with early diagnosis in this case, however, it was unavailable at that time.
- Early VL testing and results were unavailable at the initial phase due to stock issue, prolong public holidays and the test not available locally.

6. CONCLUSION

- Diagnosis of HIV based solely on HIV antibody/antigen testing may, although rarely, result in missed diagnosis. To minimize the risk of false-negative results and ensure accurate diagnosis, a comprehensive diagnostic approach incorporating HIV antigen/antibody testing, HIV viral load (VL), and p24 antigen testing should be considered. Repeat testing after 4–6 weeks is also warranted when clinically indicated.

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Better Health Brighter Future

Clinical Analysis Report: RVD Referrals to State Infectious Disease Centre from Single District Hospital

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RETROVIRAL DISEASE REFERRALS TO STATE INFECTIOUS DISEASE CENTRE FROM SINGLE DISTRICT HOSPITAL

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INTRODUCTION

Human immunodeficiency virus-related mortality has improved substantially with widespread access to antiretroviral therapy. However, late presentation, treatment adherence and opportunistic infections remains a major contributor to poor outcomes. This study evaluates the demographic and clinical outcomes of RVD patients referred from a district hospital to a state infectious disease centre in Johor, Malaysia.

METHOD

A retrospective clinical analysis was conducted among 99 patients with HIV referred from Hospital Sultan Ismail (HSI) to the State Infectious Disease Centre at Hospital Sultanah Aminah (HSA), Johor, between 2024 and 2025. Data were extracted from the HSI Electronic Medical Record. Descriptive analysis was performed to evaluate demographic characteristics, referral patterns, clinical profiles, and relevant management outcomes.

RESULTS

- Demographics: Predominantly male (82.8%) and Malaysian (94.9%), with a mean age of 41.1 years.
- New Diagnoses (37.4%): 89.2% were late presenters (defined as patients presenting for care with a CD4 count < 350 cells/μL or an AIDS-defining event, regardless of CD4 count) with severe immune depletion (median CD4: 36.5 cells/μL). (Figure 1)
- Known Cases (62.6%): Exhibited a high HAART default rate of 43.5% (median CD4: 83.5 cells/μL). (Figure 1)
- Major Opportunistic Infections (OIs): Oral candidiasis (63.6%), pneumocystis pneumonia (31.3%), tuberculosis (13.1%), cerebral toxoplasmosis (9.1%), CMV pneumonitis (6.1%), and Cryptococcal Meningitis (4.0%). (Figure 2)
- Outcomes: 18.2% required urgent tertiary transfer. The overall mortality rate was 11.1%, driven primarily by late clinical presentation.

CONCLUSION

Late HIV diagnosis and high antiretroviral treatment default rates severely compromise patient immunity, directly driving life-threatening opportunistic infections and significant mortality. Implementing routine community screening, enhancing HAART adherence tracking, and establishing dedicated in-house Infectious Disease services at district hospitals are vital clinical interventions to improve acute patient outcomes and alleviate the referral burden on tertiary centers.

DISCUSSION

- Promote Community HIV Screening: Approximately 90% of late presentation rate among new diagnoses indicates that patients are unaware until they are severely ill. Routine screening in primary care and high-risk communities is urgently needed.
- Adherence and Retention Support: Over 40% of referrals were known cases who had defaulted on HAART. Enhanced counseling, digital adherence tracking, and community-based retention programs can mitigate treatment defaulting.
- PCP Prophylaxis: PCP is the leading severe OI (31%), stricter adherence to prophylaxis guidelines is recommended for all patients with CD4 < 200 cells/μL.
- Establish In-House Infectious Disease (ID) Services: 18.2% of patients required urgent transfer to HSA for tertiary care and the high prevalence of life-threatening opportunistic infection, there is a critical need to establish dedicated in-house ID services and station resident ID physicians. Providing on-site ID expertise will optimise acute management, facilitate earlier treatment of severe co-infections, and directly alleviate the referral and tertiary transfer burden.
- Success of implementation in decentralized care did show significant reduction in transfer of care, from 15 cases in 2024 to 3 cases in 2025.

	Newly Diagnosed (N=37)	Known Case (N=62)	Overall (N=99)
Late Presenter Count	33 (89.2%)	-	-
Non-late Presenter Count	4 (10.8%)	-	-
No exposure to HAART	37 (100%)	9 (14.5%)	46 (46.5%)
Compliant to HAART	-	26 (41.9%)	
Defaulted to HAART	-	27 (43.5%)	
Median CD4 Count	36.5	83.5	55

Figure 1. Clinical Profile of RVD Referrals

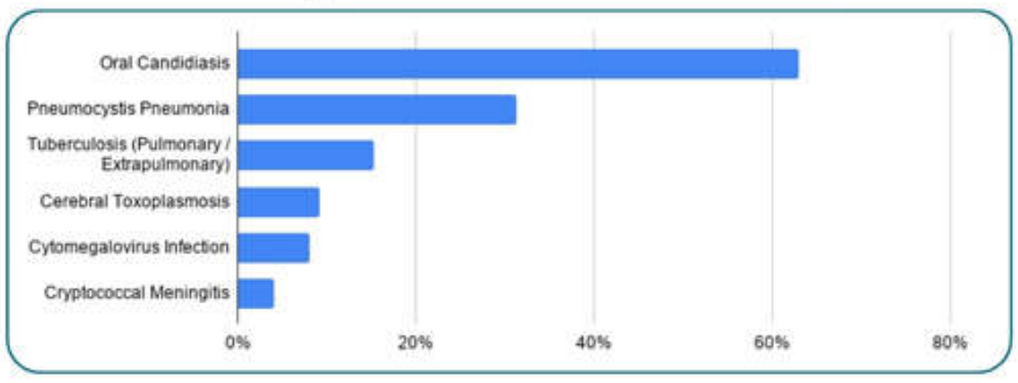


Figure 2. Prevalence of Leading Opportunistic infections

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NAC26 EP037

Beyond the Viral Load: Sibling Dynamics and Adherence Journeys in Perinatally Acquired HIV from a Counsellor's Perspective

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Beyond the Viral Load: Sibling Dynamics and Adherence Journeys in Perinatally Acquired HIV from a Counsellor's Perspective

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INTRODUCTION

Prevention of Mother-to-Child Transmission (PMTCT) failure can lead to lifelong complex clinical, psychosocial, and neurodevelopmental challenges [1, 2]. These burdens are particularly severe among orphaned youth, who must navigate status disclosure, daily antiretroviral therapy (ART) adherence, and transition into adulthood without traditional parental guidance [1, 3]. This case series highlights how two siblings infected with HIV at birth, despite an identical environment, developed markedly different adherence journeys and clinical outcomes.

CASE REPORT

CASE 1 — BROTHER ♂

- Diagnosed at age 6 (2002); ART initiated at age 7.
- Viral suppression maintained until age 13.
- Became non-adherent with poor understanding of HIV; missed medication and clinic follow-up.
- Psychiatric referral at age 17 did not prevent continued non-adherence.
- Hospitalised with tuberculosis at 19.
- Developed cerebral toxoplasmosis with seizures and haemorrhage at 24.
- Restarted ART; achieved viral suppression after one year.
- Illness left him with left-sided weakness
- Now 30, unemployed, living in a rural village.

CASE 2 — SISTER ♀

- Diagnosed at age 3 (2003); ART initiated at age 3.
- Maintained lifelong viral suppression through excellent adherence.
- Now 26, living independently and employed.

SAME ENVIRONMENT ≠ SAME JOURNEY

Brother: severe non-adherence → advanced disease → disability

Sister: sustained adherence → viral suppression → independence

DESCRIPTION OF MANAGEMENT

1. ART initiated in childhood with ongoing HIV clinic follow up.
2. Individual adherence counselling provided for persistent non-adherence.
3. Psychiatric referral made at age 17 for adolescent issues.
4. After severe illness and ART restart, viral suppression achieved after one year.
5. Family therapy involved the sister; she now provides financial support and remotely monitors adherence

DISCUSSION

Despite an identical evironment, their journeys diverged completely. Individual therapy—even with severe warnings—did not work for this patient. The turning point required near-fatal illness and a shift in counseling involving his sister. Family therapy restructured their relationship from a parent-like conflict into collaborative alliance, she now supports him financially and remotely monitors his adherence.

CONCLUSION

Managing severe non-adherence requires moving beyond pill counts and scare tactics. Counsellors must involve family members when individual interventions fail. Future protocols should focus on improving sibling relationships, turning family trauma into lasting, permanent support for medication adherence.

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Not Every Violaceous Lesion Is Kaposi Sarcoma: A Case of Bacillary Angiomatosis in Advanced HIV

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Not Every Violaceous Lesion Is Kaposi Sarcoma: A Case of Bacillary Angiomatosis in Advanced HIV

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INTRODUCTION

Cutaneous lesions are common among people living with advanced HIV (PLWH). Among these, Kaposi sarcoma (KS) is one of the most aggressive HIV-associated malignancies, particularly in individuals who present with advanced immunosuppression. However, several other dermatological conditions may closely mimic the clinical appearance of KS, making accurate diagnosis challenging and creating therapeutic dilemmas for clinicians. One important differential diagnosis is bacillary angiomatosis (BA), a rare systemic bacterial infection caused by Bartonella species (1) .BA is characterized by tumour-like vascular proliferative lesions involving the skin and, in some cases, internal organs. It predominantly affects immunocompromised individuals, particularly those with advanced HIV infection. Unlike KS, bacillary angiomatosis is a treatable infectious disease that typically responds well to appropriate antibiotic therapy, highlighting the importance of early recognition and accurate differentiation from KS.

CASE STUDY

A 32-year-old gentleman with retroviral disease (RVD) and hepatitis C virus (HCV) co-infection, diagnosed in 2015, presented to our centre after defaulting both antiretroviral therapy (ART) and follow-up since 2020. He had previously been receiving first-line ART but discontinued treatment for approximately five years.

He presented with a one-month history of multiple reddish-purple maculopapular skin lesions predominantly involving the upper limbs and trunk. He denied fever but reported constitutional symptoms, including significant weight loss. His CD_4 T-cell count was 128 cells/μL, consistent with advanced immunosuppression.

On examination, he was afebrile and haemodynamically stable. There was no palpable lymphadenopathy or hepatosplenomegaly. No oral mucosal lesions were identified. Baseline laboratory investigations were largely unremarkable, except for a markedly elevated rapid plasma regeant8 (RPR) titre of >1:1024. Given the high RPR titre and characteristic skin lesions, secondary syphilis was initially considered the most likely diagnosis, and treatment was commenced while awaiting histopathological confirmation.

Histopathological examination of the skin biopsy demonstrated chronic plasmacytic inflammation with reactive vascular proliferation and endothelial atypia, findings suggestive of cutaneous syphilis. However, immunohistochemical (IHC) staining for Treponema pallidum was negative. In addition, the morphology and immunophenotype did not support Kaposi sarcoma, as there was no spindle cell proliferation and human herpesvirus-8 (HHV-8) immunostaining was negative.

At subsequent outpatient follow-up, the patient remained clinically stable, with no new skin lesions. Some of the existing lesions had begun to improve, although others persisted. Antiretroviral therapy was reinitiated with tenofovir, lamivudine, and dolutegravir (TLD), which he tolerated well.

Further microbiological investigation revealed that tissue biopsy for Bartonella polymerase chain reaction (PCR) was positive. In view of the compatible clinical presentation and positive tissue PCR result, a diagnosis of bacillary angiomatosis was established.

Computed tomography (CT) of the thorax, abdomen, and pelvis demonstrated no evidence of visceral involvement. The patient was commenced on oral doxycycline 100 mg twice daily, with a planned treatment duration of three months.

DISCUSSIONS

Bacillary angiomatosis (BA) is an uncommon vascular proliferative infection caused mainly by *Bartonella henselae* and *Bartonella quintana*. It occurs predominantly in PLWH particularly those with low CD_4 T-cell counts, and may resemble Kaposi sarcoma (KS) clinically and histologically.

Clinically, BA typically presents with red to violaceous papules or nodules, which may be friable and bleed easily. Systemic involvement can occur, including fever, lymphadenopathy, osteomyelitis, hepatosplenic disease and bacteremia. The lesions may be difficult to distinguish from KS based on clinical appearance alone.

Diagnosis is based on histopathology, which demonstrates lobular capillary proliferation with neutrophilic inflammation. Bartonella organisms can be demonstrated using Warthin–Starry staining, although sensitivity is variable. PCR from tissue or blood can help confirm the diagnosis where available.

Treatment consists of antibiotic therapy, most commonly doxycycline or a macrolide, with treatment duration generally depending on disease severity and site of involvement. Initiation or optimization of antiretroviral therapy (ART) is an important component of management and immune restoration helps prevent recurrence.

Importantly, BA should be considered in the differential diagnosis of vascular skin lesions in PLWH, particularly in those with advanced HIV.

Correct diagnosis is essential because BA is potentially curable with antibiotics, unlike KS, which requires oncological management.

CONCLUSIONS

This case highlights the diagnostic challenge of distinguishing bacillary angiomatosis from Kaposi sarcoma and other cutaneous manifestations in people living with advanced HIV. A high index of suspicion, combined with histopathological and molecular investigations, is essential for establishing the correct diagnosis when clinical features are atypical. Early recognition of bacillary angiomatosis is crucial, as it is a potentially curable condition that responds well to appropriate antibiotic therapy, thereby avoiding unnecessary treatment for malignancy and improving patient

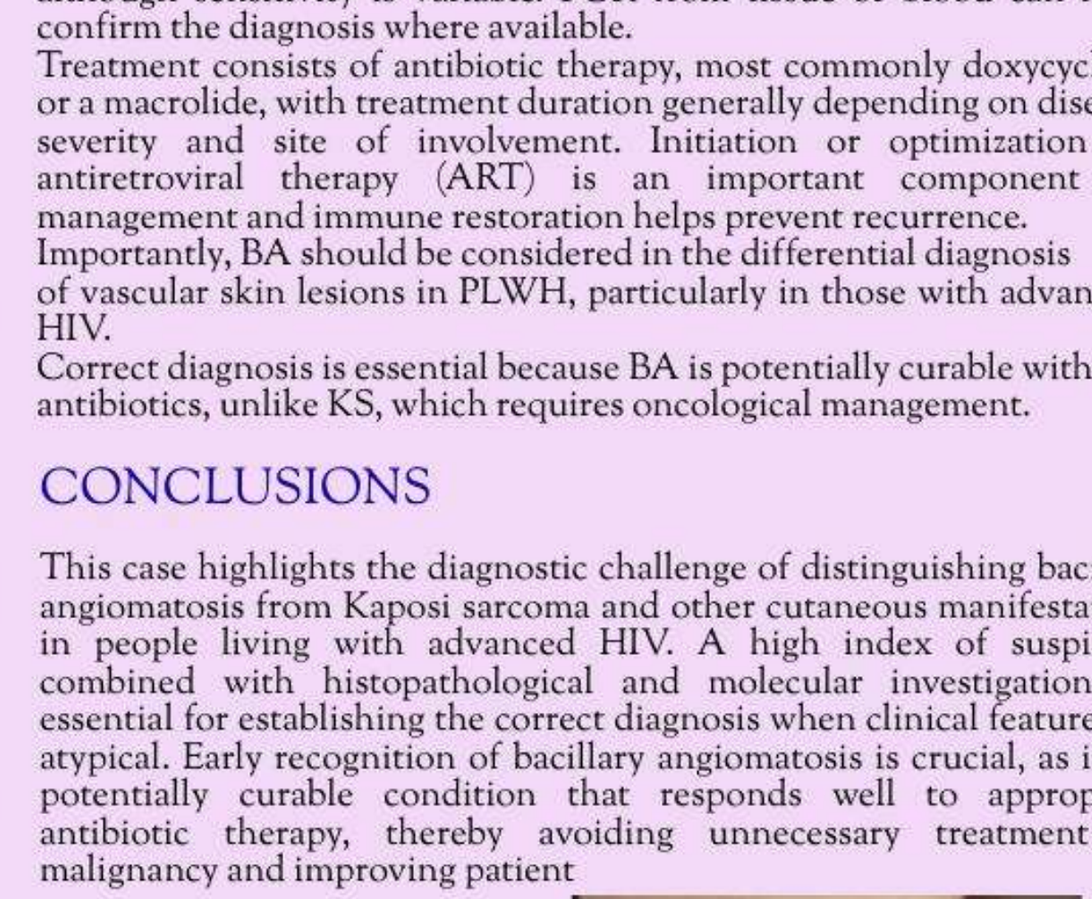


Figure 1,2: skin lesions
Picture 1: tissue biopsy Bartonella PCR result

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NAC26 EP041

Cerebral Toxoplasmosis with Obstructive Hydrocephalus in Advanced HIV

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Cerebral Toxoplasmosis with Obstructive Hydrocephalus in Advanced HIV

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INTRODUCTION

Cerebral toxoplasmosis is one of the most common opportunistic infection of the central nervous system in advanced human immunodeficiency virus (HIV) infection. Although most cases respond well to antimicrobial therapy, obstructive hydrocephalus and cerebral herniation requiring neurosurgical intervention are rare. We report a case of cerebral toxoplasmosis complicated by obstructive hydrocephalus and uncal herniation in a patient with newly diagnosed HIV infection.

CASE REPORT

A 29-year-old man with no prior medical illness presented with a one-week history of fever and altered sensorium, preceded by four months of headache, weight loss, and poor appetite. On admission, his Glasgow Coma Scale was E4V1M6. HIV serology was positive, with a CD4 count of 12 cells/µL. Computed tomography of the brain demonstrated a right basal ganglia lesion with marked mass effect and obstructive hydrocephalus. Magnetic resonance imaging revealed multiple ring-enhancing lesions with surrounding oedema, suggestive of cerebral toxoplasmosis. Intravenous co-trimoxazole was initiated; however, neurological deterioration necessitated intubation and urgent neurosurgical referral. Despite insertion of an external ventricular drain, serial imaging demonstrated worsening hydrocephalus and right uncal herniation. Emergency right decompressive craniectomy was performed, resulting in radiological improvement(Figure1). Cerebrospinal fluid toxoplasmosis PCR was positive, while investigations for bacterial, tuberculous, and cryptococcal infections were negative. Anti-toxoplasmosis therapy was changed to pyrimethamine and clindamycin because of severe transaminitis, with gradual neurological recovery. Repeat MRI after six weeks demonstrated complete resolution of the cerebral lesions and hydrocephalus. Antiretroviral therapy was commenced, and the patient was discharged after intensive rehabilitation.

DISCUSSION & CONCLUSION

Cerebral toxoplasmosis may rarely present with life-threatening obstructive hydrocephalus and cerebral herniation. Early diagnosis, prompt neurosurgical intervention, and appropriate antimicrobial therapy are essential for favorable outcomes.

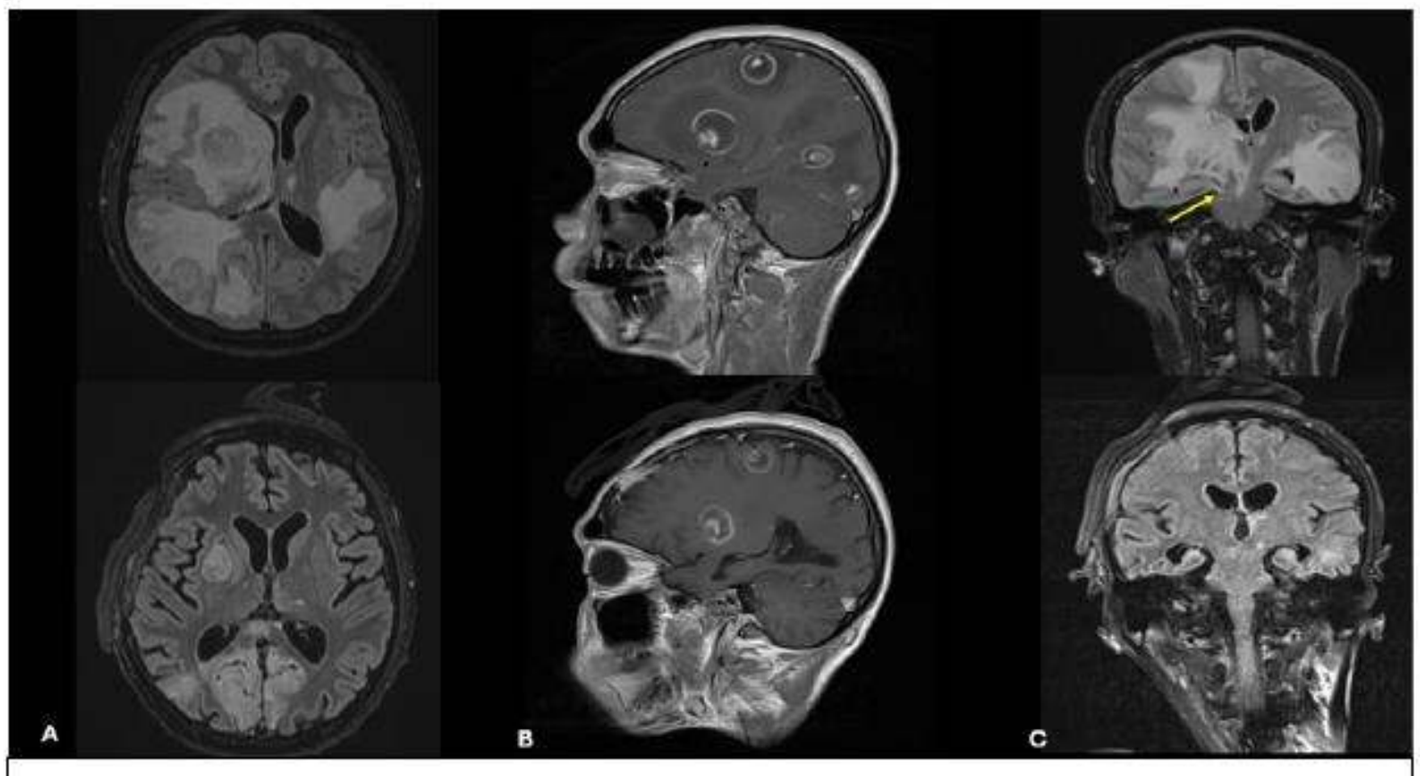


Figure 1 : Pre and post craniectomy

A. Pre and post craniectomy MRI T2W axial images showing reduction in size of lesions and resolution of perilesional oedema and mass effect.
B. Pre and post craniectomy MRI post Gadolinium sagittal images showing reduction in size and mass effect as well as hydrocephalus.
C. Pre and post craniectomy MRI T2W coronal images showing resolution of the cerebral oedema and mass effect. Early uncal herniation has also resolved (arrow).

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NAC26 EP042

Early Identification of Adherence Barriers and Retention Outcomes among First-Year ART Patients: An Embedded, Pharmacist-Led Enhanced Adherence Counselling Model in Malaysia

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EARLY IDENTIFICATION OF ADHERENCE BARRIERS TO PREVENT FIRST-YEAR ART DISENGAGEMENT

A PHARMACIST-LED EARLY WARNING MODEL IN MALAYSIA

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INTRODUCTION

First-year ART is the period of highest risk for disengagement from HIV care. Enhanced Adherence Counselling (EAC) is typically implemented only after virological failure. We evaluated a proactive pharmacist-led EAC model designed to identify adherence barriers before disengagement occurs.

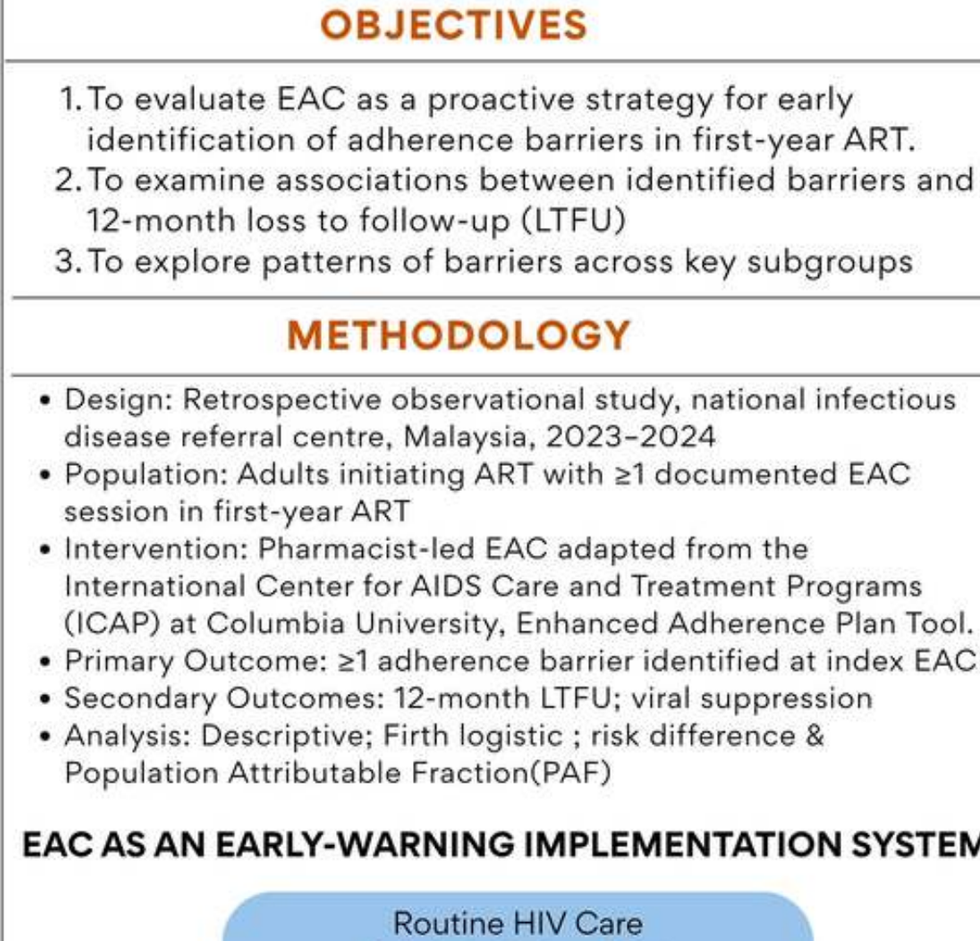
OBJECTIVES

1. To evaluate EAC as a proactive strategy for early identification of adherence barriers in first-year ART.
2. To examine associations between identified barriers and 12-month loss to follow-up (LTFU)
3. To explore patterns of barriers across key subgroups

METHODOLOGY

- Design: Retrospective observational study, national infectious disease referral centre, Malaysia, 2023–2024
- Population: Adults initiating ART with ≥1 documented EAC session in first-year ART
- Intervention: Pharmacist-led EAC adapted from the International Center for AIDS Care and Treatment Programs (ICAP) at Columbia University, Enhanced Adherence Plan Tool.
- Primary Outcome: ≥1 adherence barrier identified at index EAC
- Secondary Outcomes: 12-month LTFU; viral suppression
- Analysis: Descriptive; Firth logistic ; risk difference & Population Attributable Fraction(PAF)

EAC AS AN EARLY-WARNING IMPLEMENTATION SYSTEM



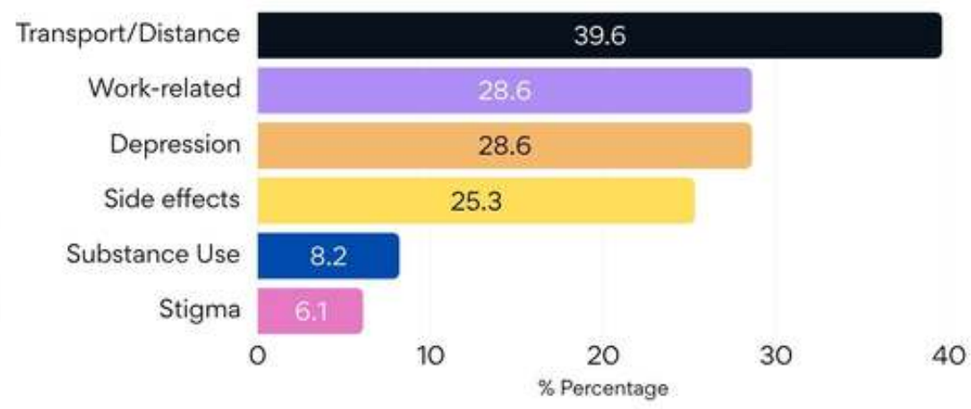
RESULTS — COHORT OVERVIEW (N = 245)

38 YRS MEDIAN AGE | **91%** MALE SEX | **325** MEDIAN CD4 AT BASELINE (CELLS/ML)

HIGH EARLY DETECTION OF ADHERENCE BARRIERS

100%	69.8%	> 95%
Had ≥1 Barrier	Reported multiple barriers (median: 2 per patient)	Viral suppression

EARLY IDENTIFICATION OF ADHERENCE BARRIERS



WHO SHOULD WE TARGET FIRST?

Substance use → aOR 11.76 (95% CI 4.05–34.17)

Stigma → aOR 5.74 (95% CI 1.75–18.87)

} PRIORITY POPULATIONS FOR EARLY INTERVENTION

- LTFU at 12 months: 16.3% (defined as ≥90 consecutive days absent from care)
- EAC functioned as a triage tool: **27.4%** required ART modification, predominantly among those with clinical barriers (RR 2.47, 95% CI 1.24–4.92)

CONCLUSION

Pharmacist-led EAC transforms adherence counseling into a proactive early warning system, enabling early barrier detection and targeted, scalable interventions.

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WE THANK DIRECTOR GENERAL OF HEALTH MALAYSIA, PHARMACY DEPARTMENT, HOSPITAL SUNGAI BULOH, MALAYSIA, AND THE COOPER HIV/AIDS PROGRAM, KIRBY INSTITUTE (UNSW SYDNEY), FOR THEIR SUPPORT.

NAC26 EP043

Implementation of a Pharmacist-Led Standard Operating Procedure for Routine Detection of Late Antiretroviral Therapy Pick-Up in Outpatient Pharmacy Practice

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DETECTING DISENGAGEMENT BEFORE FAILURE

A PHARMACIST-LED SYSTEM USING LATE REFILL DETECTION AND COUNSELLING

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Late ART refills are an established early warning indicator of treatment failure but often remain undetected in routine care. Pharmacists at the point of dispensing are uniquely positioned to enable real-time early warning and intervention.

Phase 1: 2019 Baseline Study
691 PLHIV assessed
101 (14.6%) experienced late ART refill

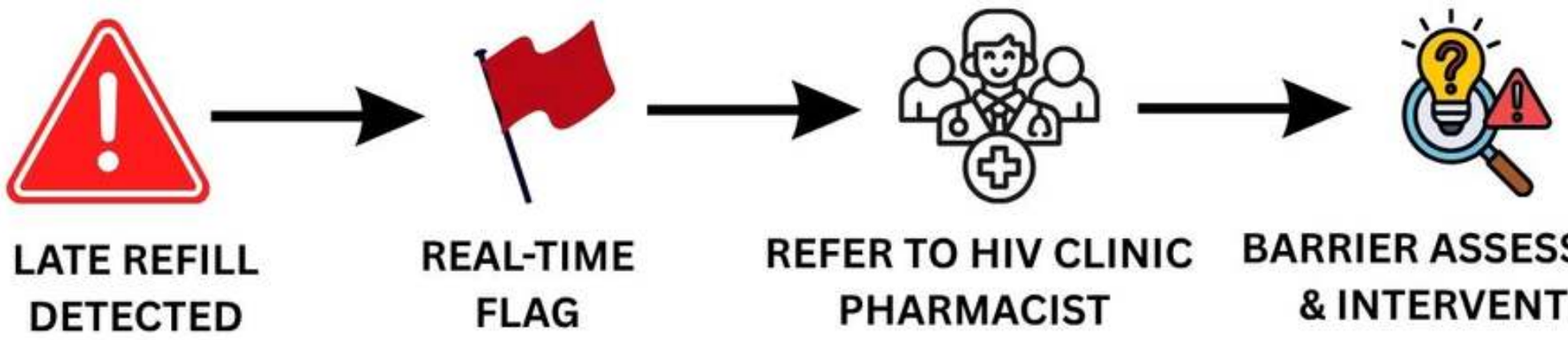
- ~15% of patients had late refills due to structural/behavioral barriers (work, non-adherence, side effects)
- Pharmacist counselling at point-of care of late refill improved adherence (MPR ↑ 14.8%, p<0.001)

Phase 2 : New Standard of Care
252 late ART refills audited
60.6% had inadequate ART supply

- Historically, no routine detection existed prior dispensing
- A new standard operating procedure established systematic detection of patients with late refill at outpatient pharmacy

THE NEW ACTION PATHWAY

Setting: Outpatient Pharmacy, Hospital Sungai Buloh (National Infectious Disease Referral Centre)



THE IMPACT DASHBOARD

49%
Late refill detection within 2 months

16% → 4%
Late refill rates reduced within 2 months

0% vs 7%
Recurrent late refills Detected vs undetected

Detect late refills → Counsel early → Keep patients engaged in care

CONCLUSION & IMPLICATIONS

Routine pharmacist-led ART refill monitoring transformed dispensing into a real-time early warning system for disengagement, enabling timely intervention before treatment failure.



References available upon request
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The authors acknowledge the Outpatient Pharmacy Department and the Medication Therapy Adherence Clinic for Retroviral Disease (MTAC-RVD), Hospital Sungai Buloh, Malaysia, for their support in the implementation and evaluation of this initiative.

NAC26 EP046

Life-Threatening Tenofovir Disoproxil Fumarate-Induced Fanconi-Spectrum Tubulopathy: Progressive Hypokalaemia as an Early Marker of Multisystem Toxicity

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LIFE-THREATENING TDF-INDUCED FANCONI-SPECTRUM TUBULOPATHY

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Abstract ID: NAC26EP046

INTRODUCTION

- Tenofovir disoproxil fumarate (TDF) is a widely prescribed antiretroviral agent with established antiviral efficacy and overall safety.However, long-term TDF therapy may rarely cause proximal renal tubular cell injury, presenting across a continuum from mild subclinical dysfunction to full-blown Fanconi-spectrum tubulopathy.
- The pathophysiology behind this is Tenofovir accumulation inside proximal tubular cells that cause mitochondrial damage and impairs ATP-dependent transport, precipitating severe urinary wasting of solutes including potassium, phosphate, amino acids, and bicarbonate.

CASE REPORT

- A 51-year-old female with virologically suppressed HIV on long-term HAART medication for 8 years of TDF/FTC/EFV presented to SASMEC with a 2-month history of progressive lethargy, Lower limb weakness, Recurrent falls (sustaining a right 4th proximal phalanx fracture) and during admission developed severe hypokalemia & hypotension requiring vasopressor support following a recent diarrhoeal illness.
- Prior surveillance showed preserved baseline renal function and normal urinalysis. Notably, mild hypokalaemia (**3.4 mmol/L**) documented in 2025 (~1 year prior) served as an unrecognized early manifestation of TDF-associated tubular dysfunction.
- Investigations during admission revealed Severe Hypokalaemia (**2.1 mmol/L**), Hypophosphataemia (**0.53 mmol/L**), High anion gap metabolic acidosis, Elevated lactate (**13 mmol/L**), Acute Kidney Injury (AKI), Rhabdomyolysis (Creatine Kinase **1453 U/L**), and ECG displaying T-wave inversion with prominent U waves (raising concern for hypokalaemic cardiomyopathy).
- Infectious causes were excluded. Clinical findings confirmed TDF-induced Fanconi-spectrum tubulopathy with severe electrolyte wasting, rhabdomyolysis, and metabolic bone disease (pathological fracture).

- She was given aggressive intravenous fluid resuscitation, potassium replacement and electrolyte correction with close high-dependency cardiovascular monitoring.Regards to her medication her TDF was immediately discontinued and replaced with Abacavir / Lamivudine.

- Her condition improved, with steady normalization of serum potassium, phosphate, lactate, and renal function alongside complete clinical recovery from muscle weakness and acidosis.Also successfully weaned off her vasopressors.
- She was discharged home after a 9-day hospital admission without permanent sequelae.

DISCUSSION

- This case highlights hypokalaemia as a early marker ,whereby mild, persistent or progressive falls during tenofovir surveillance could signal early proximal tubular dysfunction, long before overt Fanconi syndrome develops, permitting timely drug substitution.
- Intercurrent diarrhoea then compounded electrolyte losses, precipitating catastrophic rhabdomyolysis, lactic acidosis and shock.
- Ultimately, chronic phosphate wasting silently drives metabolic bone disease, while profound hypokalaemia risks fatal dysrhythmias and cardiomyopathy—underscoring vigilant, proactive monitoring.

CONCLUSION

- Progressive hypokalaemia represents a critical early diagnostic clue of TDF associated proximal tubular dysfunction.
- Routine electrolyte monitoring and prompt TDF withdrawal prevent severe, life-threatening multisystemic decompensation.

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NAC26 EP047

A Diagnostic Odyssey: Urine LAM Cross-Reactivity with Mycobacterium avium Complex in Patients with Advanced HIV

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A Diagnostic Odyssey: Urine LAM Cross-Reactivity with *Mycobacterium avium* Complex in Patients with Advanced HIV

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INTRODUCTION

Urine lipoarabinomannan (LAM) antigen test is a vital point-of-care tool for tuberculosis (TB) screening in advanced HIV. However, cross-reactivity with non-tuberculous mycobacteria (NTM) frequently causes false-positives. This case series highlights the need for cautious interpretation of positive assays in severely immunosuppressed patients.

OBJECTIVES

- To highlight urine LAM cross-reactivity with NTM, particularly MAC, in advanced HIV
- To explore the diagnostic challenges in differentiating disseminated TB from MAC infection
- To emphasize a multimodal diagnostic approach to prevent misdiagnosis and delays in appropriate therapy

CASE 1: RECOVERY

A 48-year-old male presenting with fever, night sweats, and weight loss was diagnosed with advanced HIV (CD4: 7 cells/µL). He was treated for smear-negative TB following a positive urine LAM, with concurrent Pneumocystis jirovecii pneumonia and cytomegalovirus retinitis. Mycobacterial blood cultures later revealed disseminated Mycobacterium avium complex (MAC). Switching to targeted anti-MAC therapy and antiretroviral therapy (ART) led to full clinical recovery, weight gain, and viral suppression within six months.

CASE 2: FATAL OUTCOME

A 27-year-old male with advanced HIV (CD4: 8 cells/µL) presented with sepsis. Anti-TB therapy was initiated based on a positive urine LAM. Two weeks later, he was readmitted with persistent fever, vomiting, and increasing inflammatory markers, rapidly deteriorating into severe, refractory distributive shock. Despite aggressive fluid resuscitation, mechanical ventilation, and broad-spectrum antimicrobial therapy, the patient succumbed. Retrospective blood cultures grew MAC, confirming a false-positive urine LAM that fatally delayed appropriately targeted NTM therapy.

DISCUSSION

In profoundly immunosuppressed patients, the clinical features of TB and NTM infections, particularly MAC, frequently overlap. While urine LAM allows rapid TB screening [1], its cross-reactivity with NTM cell-wall components remains a major diagnostic pitfall (literature reports a specificity of 88.61%) [1,2]. Positive results must not be interpreted in isolation but correlated with mycobacterial cultures, clinical evaluation, and imaging.

CONCLUSION

Urine LAM is valuable but should not be interpreted in isolation. Consider disseminated MAC in advanced HIV with atypical presentation or poor response to TB therapy.

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NAC26 EP049

Real-World Effectiveness, Safety, and Tolerability of Dolutegravir/Lamivudine Dual Therapy: A Retrospective Cohort Study in Hospital Sungai Buloh, Malaysia

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Universiti Kebangsaan Malaysia

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NAC26EP049 · TRACK A · CLINICAL

REAL-WORLD EFFECTIVENESS, SAFETY AND TOLERABILITY OF DOLUTEGRAVIR/LAMIVUDINE DUAL THERAPY

A retrospective cohort study in Hospital Sungai Buloh, Malaysia

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LOCAL REAL-WORLD EVIDENCE AT WEEK 48

92.4% observed viral suppression by Week 48
194/210 (95% CI 87.9–95.6)

95.6% probability of remaining on DTG/3TC at Day 336 (95% CI 92.1–97.5)

51.9% had ≥5% weight gain by Week 48
112/216; p<0.001

1 INTRODUCTION

- DTG/3TC reduces cumulative ART exposure while retaining potent virological activity.
- Trials and real-world data show durable suppression in selected initiation and switch populations [1–5].
- Local Malaysian evidence in a multiethnic, comorbid public-sector cohort remains limited.

2 OBJECTIVES

1. **EFFECTIVENESS**: Virological suppression (HIV-1 RNA <50 copies/ml) at Weeks 24 and 48.
2. **SAFETY**: Documented AEs; laboratory changes; and weight through Week 48.
3. **TOLERABILITY**: Treatment persistence and discontinuation through Week 48.

3 METHODS

1. STUDY DESIGN

1.1 COHORT & SETTING
- Retrospective observational cohort
- Hospital Sungai Buloh
- Jan 2022–Dec 2024
- Consecutive sampling

1.2 ASSESSMENT WINDOW

INDEX DTG/3TC start/switch | WEEK 24 ±12 weeks | WEEK 48 ±12 weeks

2. PARTICIPANT FLOW

275 assessed
→ 27 excluded (25 no eligible VL · 2 HBV)
→ 248 included
→ 11 initiation | 237 switch

✓ **INCLUDED**
- Adults with HIV-1
- DTG/3TC initiation or switch
- ≥1 eligible post-baseline VL

× **EXCLUDED**
- Pregnancy
- HBV coinfection
- Loss/transfer before the first post-baseline VL

Ethics: UKM PPI/111/8/JEP-2026-227 · NMRR ID-26-00697-G9Q

3. ANALYSIS

3.1 EFFECTIVENESS ESTIMATES
- Observed + conservative ITT sensitivity analysis (missing VL = non-suppressed); exact binomial 95% CIs

3.2 REPEATED OUTCOMES
- Friedman and McNemar tests

3.3 PREDICTORS & PERSISTENCE
- Logistic regression and Kaplan–Meier analysis

3.4 MPR
- (Days supplied ÷ days observed) ×100
- Optimal ≥95%; suboptimal 80–94%; poor <80% [6]

4 RESULTS

COHORT AT A GLANCE

47.9	89.1%	43.8%	89.1%
mean age, years ±11.6	male 221/248	key population MSM	optimal MPR 221/248

DTG/3TC switch reasons: Comorbidity 48.8% | ART toxicity 26.2% | Simplification 21.0%

OBJECTIVE 1: VIROLOGICAL EFFECTIVENESS

a) Virological suppression remained >92% in observed analyses

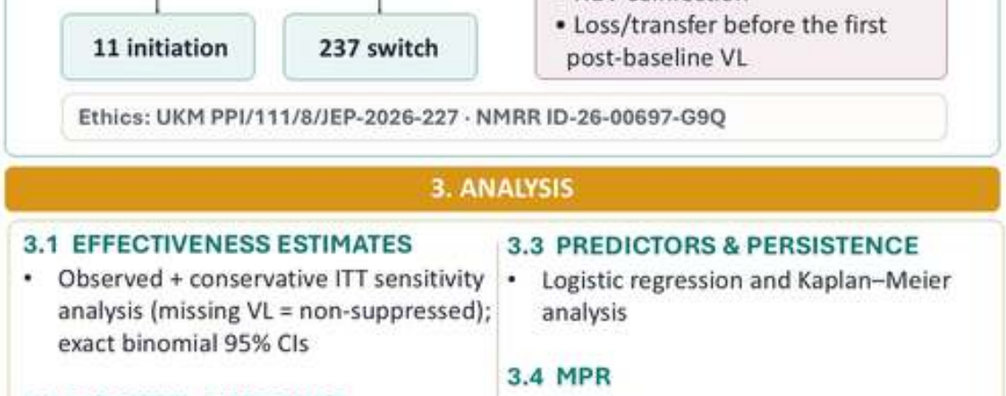


Figure 1. Virological suppression at Week 24 and Week 48 after DTG/3TC initiation or switch.

4 RESULTS (continue)

b) Detectable viraemia

7.6%	81.2%	1	0
detectable VL at week 48; 16/210	was low-level viraemia, 50–199 copies/mL; 13/16	confirmed virological failure due to poor MPR	detected DTG/3TC resistance mutations

MPR category was associated with suppression (overall p=0.040).

OBJECTIVE 2: SAFETY & WEIGHT CHANGE

0 documented adverse events
Retrospective records may under-detect mild or patient-reported events.

NO renal or hepatic deterioration
Creatinine 110.5→111.0 µmol/L; eGFR 69.9→69.0 mL/min/1.73m²; ALT 33.5→25.0 U/L (all p<0.001).

STABLE metabolic profile
FBS, total cholesterol, LDL and triglycerides (all p>0.05).

Weight gain emerged as the clearest monitoring signal

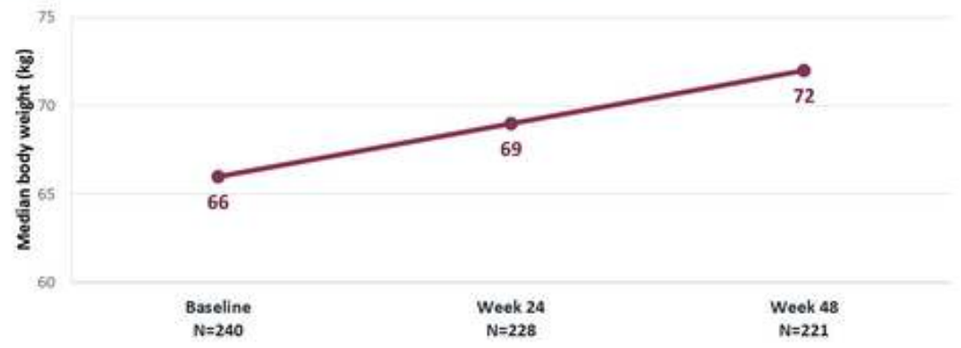


Figure 2. Median body weight increased from 66.0 to 72.0 kg (p<0.001). Median individual change at Week 48: +4.0 kg (IQR 0.5–7.0).

51.9% ≥5% gain 112/216 | **29.6%** ≥10% gain 64/216

Lower baseline BMI independently predicted ≥5% gain: aOR 0.914 per 1 kg/m² (95% CI 0.853–0.980; p=0.011).

OBJECTIVE 3: TREATMENT PERSISTENCE & DISCONTINUATION

95.6% PERSISTENT

Day 336 treatment persistence
95% CI 92.1–97.5
237 at risk immediately before Day 336

11/248 (4.4%) discontinued:
- 1 treatment-related — persistent low-level viraemia
- 10 non-treatment-related—access/formulary n=4, transfer or loss to follow-up n=2 each and patient/provider choice n=1 each.

5 DISCUSSION

EFFECTIVENESS
More than 92% observed suppression by Week 48, 95.6% persistence, consistent with trials and real-world studies [1–5]. Lower ITT estimates reflected missing viral-load results.

ADHERENCE
MPR predicted Week 48 suppression (p=0.040). The only virological failure occurred with poor adherence, without detected resistance.

WEIGHT
Median weight increased from 66.0 to 72.0 kg, 51.9% gained ≥5%. Lower baseline BMI predicted gain (aOR 0.914), suggesting recovery from prior weight suppression may contribute after switching.

SAFETY & APPLICABILITY
Laboratory parameters remained broadly stable, with no documented adverse events. Discontinuation event is also uncommon. Findings mainly apply to treatment-experienced patients.

6 CONCLUSION & FUTURE DIRECTIONS

In selected, predominantly treatment-experienced Malaysian PLWH, DTG/3TC achieved high observed virological suppression and favourable 48-week persistence. Adherence support, weight and metabolic monitoring remain important.

PRACTICE STRATEGIES

Protect adherence and continuity through refill review, counselling, formulary access, transfer coordination and active follow-up.
Monitor weight, BMI, HbA1c/glucose and lipids to distinguish healthy recovery from excessive gain.
Next: Multicenter comparative cohorts and prospective studies with patient-reported outcomes and follow-up beyond 48 weeks.

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Abbreviations: 3TC, lamivudine; AE, adverse event; ART, antiretroviral therapy; BMI, body mass index; DTG, dolutegravir; FBS, fasting blood sugar; HBV, Hepatitis B; ITT, intention-to-treat; MPR, medication possession ratio; PLWH, people living with HIV; VL, viral load.

NAC26 EP059

Establishing a Differentiated Care Model For People With HIV at Malaysia Largest HIV Clinic

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Establishing a Differentiated Care Model for People Living with HIV at Malaysia's Largest HIV Clinic

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Background

Despite national strategies to decentralize HIV care to primary care clinics, high patient volumes remain concentrated in tertiary specialty clinics.[1] Hospital Sungai Buloh's HIV clinic manages over 7000 active patients living with HIV (PWH), leading to clinic congestion, long waiting times, and high clinician workload. Differentiated Service Delivery (DSD) models tailored for stable patients are crucial to streamline care and reduce treatment discontinuation in high volume settings.

Objectives

- To evaluate the implementation and longitudinal outcomes of the EZ-Wellness clinic – A hybrid telemedicine and counselor-led DSD model.
- To assess impact on **clinic congestion and patient retention (default rates) and patient satisfaction** through task-shifting and digital health.

Methodology

Eligibility criteria

- Adults living with HIV with sustained virological suppression
- Absence of unmanaged comorbidities or major acute clinical complications.

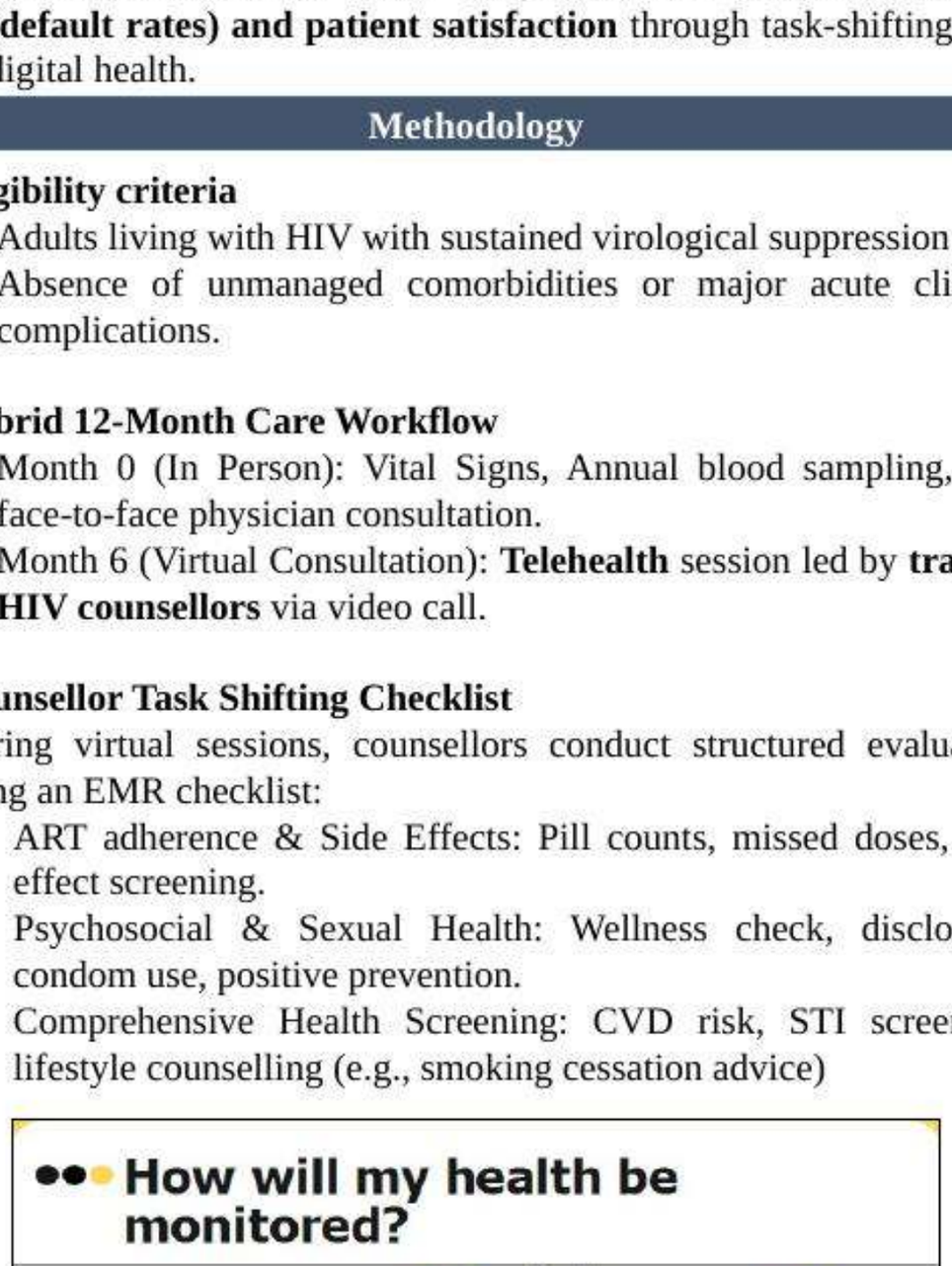
Hybrid 12-Month Care Workflow

- Month 0 (In Person): Vital Signs, Annual blood sampling, and face-to-face physician consultation.
- Month 6 (Virtual Consultation): **Telehealth** session led by **trained HIV counsellors** via video call.

Counsellor Task Shifting Checklist

During virtual sessions, counsellors conduct structured evaluation using an EMR checklist:

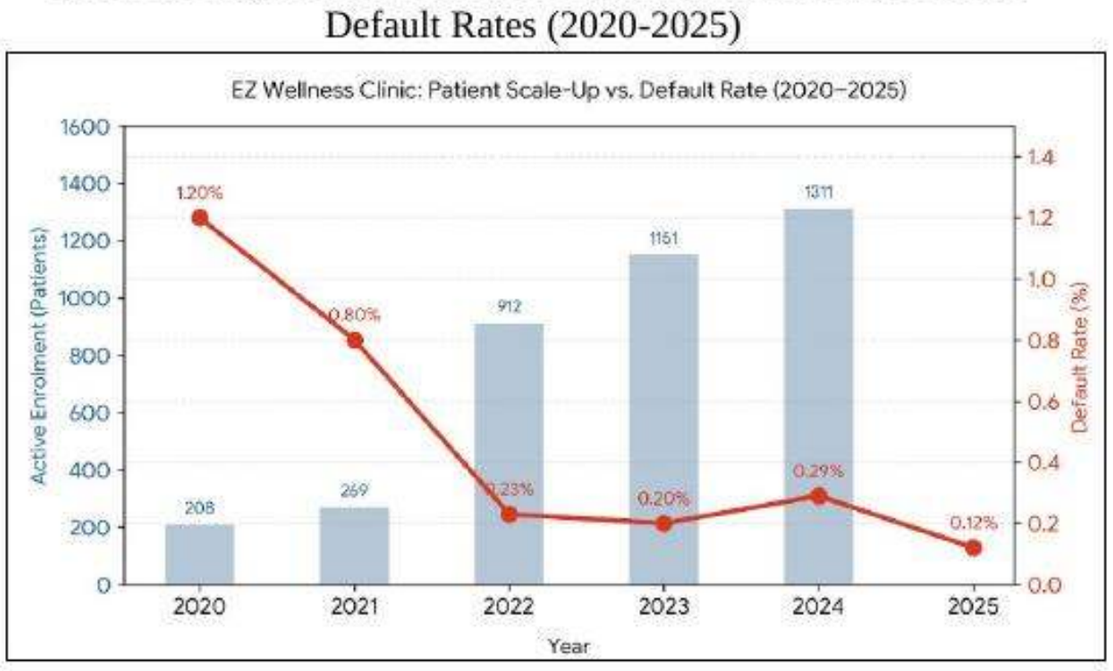
1. ART adherence & Side Effects: Pill counts, missed doses, side effect screening.
2. Psychosocial & Sexual Health: Wellness check, disclosure, condom use, positive prevention.
3. Comprehensive Health Screening: CVD risk, STI screening, lifestyle counselling (e.g., smoking cessation advice)



Result

- Patient enrolment expanded more than 6-fold, growing from 208 in 2020 to 1311 in 2024.
- Virtual clinical sessions accommodated up to 30 appointments per session, substantially reducing physical clinic and clinic crowding.

Table 1: Longitudinal Trends in Patient Enrolment and Annual Default Rates (2020-2025)



Patient Experience & Feedback

Survey responses (n=44) demonstrated high patient satisfaction regarding convenience, time savings, and privacy.

- *" Easy to use and saves a lot of time on doctors appointments."*
- *" Convenient for patient, not needing to take leave from work."*
- *" Saved a lot of waiting time and provides lots of privacy."*

Discussion

Maximising Task Shifting

- Task shifting routine clinical follow-ups to trained HIV counsellors optimized physician utilization for complex or unstable cases while maintaining primary care quality.[1]

Beyond CD4/ Viral load

- Counsellor-led checklist ensured stable patients received structured screening for non-communicable diseases (NCDs), STI prevention, and mental health support.

Regional Replicability

- Demonstrates that digital health combined with task-shifting is feasible, scalable, and highly effective within high-burden hospital based HIV centres across the country and Asia.

Limitations

- Implementation requires trained post-basic HIV counsellors, feasible digital infrastructure and patient digital literacy.
- Connectivity issues occasionally impacted virtual call quality.

Conclusion

The EZ Wellness Clinic proves that a telemedicine-integrated, counsellor-led differentiated care model is highly effective in decongesting high-volume tertiary clinics while sustaining excellent patient retention (<1% default rate). The model offers a scalable blueprint for chronic HIV care management in resource constrained regional health systems.

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NAC26 EP060

A Decade of HIV Mortality in the ART Era: Patterns and Causes of Death Among People Living with HIV in Northeast Malaysia

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Puteri Wan Seribani
HRPZ II

A DECADE OF HIV MORTALITY IN THE ART ERA
PATTERNS AND CAUSES OF DEATH AMONG
PEOPLE LIVING WITH HIV (PLHIV) IN NORTHEAST MALAYSIA

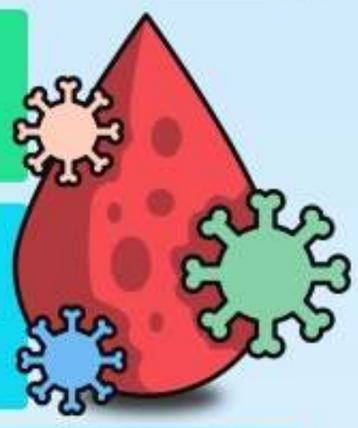
Puteri Wan Seribani MD, Loqman Hakim A , Normaizan H, Nor Amelia R, Anilawati MJ
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KEMENTERIAN KESIHATAN MALAYSIA

INTRODUCTION

With the widespread availability of antiretroviral therapy (ART), people living with HIV (PLHIV) can achieve near-normal life expectancy when diagnosed early and retained in care.

However, HIV-related mortality persists, particularly among individuals presenting late or disengaging from care.



Malaysia's Global AIDS Monitoring (GAM) 2024 report estimates approximately 85,000 PLHIV, with 6–7% of deaths attributed to AIDS-related causes.

This study reviews 10 years of HIV mortality at Hospital Raja Perempuan Zainab II (HRPZ II), the main tertiary referral centre in Kelantan, a state in Northeast Malaysia, to describe mortality patterns, causes of death, and potential gaps in HIV care.

OBJECTIVES

Primary Objective:

- To describe all-cause mortality among PLHIV managed at HRPZ II over a 10-year period.

Secondary Objectives:

- To determine the proportion of HIV-related, non-HIV-related, and potentially preventable deaths.
- To assess ART delay, interruption, or virological failure prior to death.
- To evaluate retention in care status prior to death.
- To describe trends in causes of death over the 10-year study period.

METHODOLOGY

Study Design
Retrospective descriptive audit

Study Population
PLHIV registered and managed at HRPZ II who died during the study period.

Study Period
2015 - 2024

Data Collection
- HIV clinic database
- Hospital medical records
- Laboratory records (CD4 counts and viral loads)
- Death certificates
- Discharge summaries

Inclusion Criteria
Confirmed HIV diagnosis and documented death between 2015 and 2024.

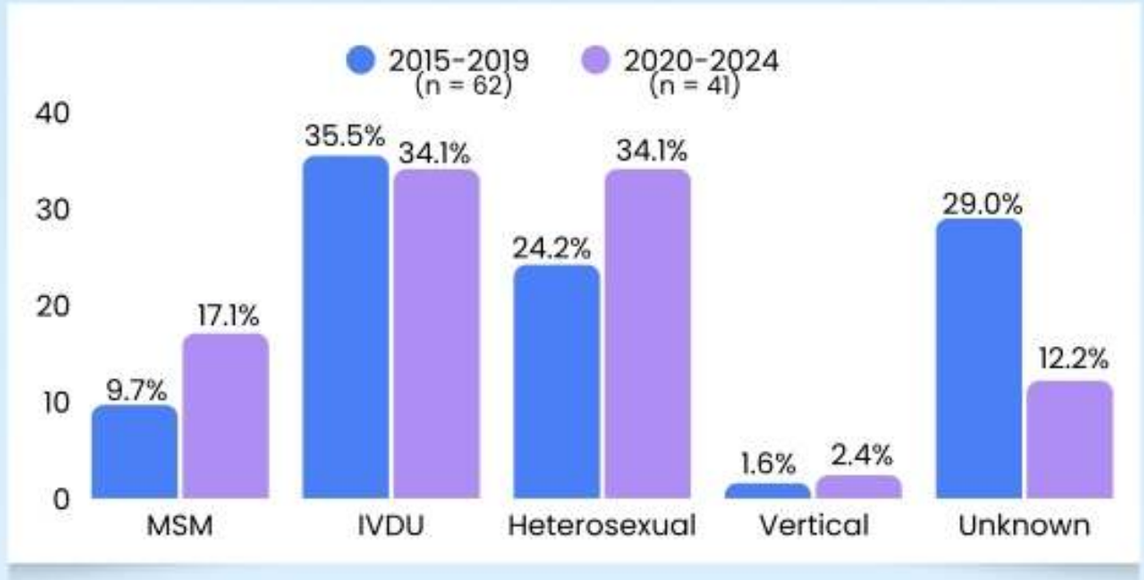
Exclusion Criteria
Patients who died at home or in hospitals other than HRPZ II



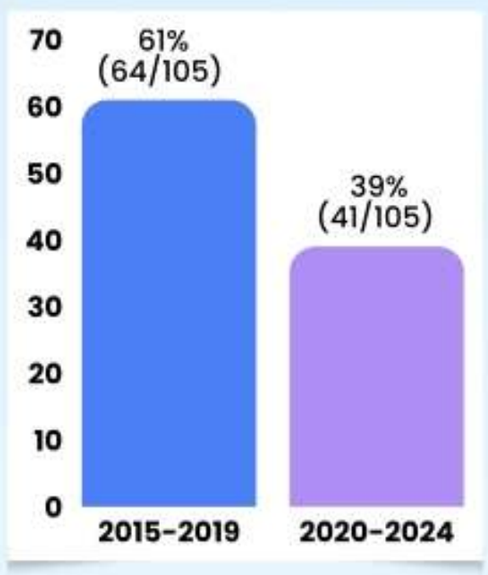
RESULTS

1. Over 10 years, 105 deaths were recorded—mostly male (80%), mean age 41.1 years, and predominantly Malay (90.5%).

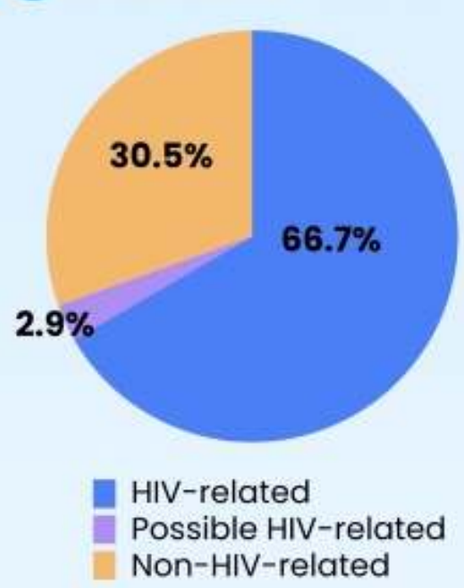
2. **Modes of HIV Transmission (%)**



3. **HIV Death By Period**



4. **HIV-Related Deaths Classification**



- 66.7% (70/105) were classified as HIV-related, 2.9% (3/105) were possible HIV-related and 30.5% (32/105) were non-HIV-related
- A large proportion of patients had advanced immunosuppression, with the last recorded CD4 count prior to death <200 cells/mm³ in 66.7%.
- Over half of patients were not on ART at death (26.7% never initiated; 28.5% defaulted).
- Non-HIV–related deaths accounted for 30.5%, including acute coronary syndrome, chronic liver disease, intracerebral haemorrhage, pulmonary embolism, malignancies, and infective bronchiectasis.

5. **Opportunistic Infections in HIV- Related Deaths**

Infections	%
Tuberculosis (TB)	49.5
Pneumocystis jirovecii pneumonia (PJP)	16.2
Cerebral Toxoplasmosis	10.5
Cryptococcal Meningitis	7.6

KEY CLINICAL TAKEAWAYS

Higher HIV-related mortality in earlier years declined over time, likely reflecting improved ART access. Deaths remained linked to advanced immunosuppression, delayed/interrupted ART, and TB as the leading OI, with substantial contribution from non-HIV conditions. Strengthening early diagnosis, rapid ART initiation, retention in care, and comorbidity management is essential to reduce preventable deaths.

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NAC26 EP068

Adrenal Epstein-Barr Virus-Related Smooth Muscle Tumour Mimicking as Tuberculosis in Advanced HIV Patient

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Adrenal Epstein-Barr Virus-Related Smooth Muscle Tumour Mimicking as Tuberculosis in Advanced HIV Patient

NAC26 EP068

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Introduction

Immunocompromised HIV patients are susceptible to atypical neoplasms. Epstein-Barr virus related smooth muscle tumour (EBV-SMT) are rare but should be considered when infections like tuberculosis (TB) are excluded. We present a challenging case of adrenal EBV-SMT in a patient with advanced HIV and virologic failure.

Case Description

37-year-old retroviral disease gentleman with a history of non-compliance to antiretroviral therapy (ART) and prior empiric TB treatment for tonsillar abscess with lymphadenopathy 1 year ago which tuberculosis (TB) and bartonella investigations were negative. 2 week following initiation of anti-TB, he defaulted follow up and medications. One year later, he presented with fever and weight loss for 1 month. His CD4 count was 55 cells/µL and viral load 695,000 copies/mL. Imaging revealed an enlarging left adrenal lesion with central necrosis (3.8 cm) and a palatine tonsillar collection (1.2cm). Extensive workup, including MTB Genexpert, TB culture, and fungal PCR were negative. Adrenal biopsy confirmed EBV- SMT via positive EBV RNA hybridization in spindle cells. Total adrenalectomy was planned.

Investigation	Result
BLOOD	
CD4 count	55 cells/µL (*initial presentation*) → 237 cells/µL (26/05/2026)
HIV viral load	221,000 copies/mL (Feb 2026) | 695,000 copies/mL (Mar 2026) | 426 copies/mL (26/05/2026)
ADRENAL SAMPLE – MICROBIOLOGY	
Test	**Result**
NTM culture & sensitivity (C&S)	Negative
TB culture	Negative
MTB GeneXpert	Negative
TB PCR	Negative
Fungal culture	Negative
HISTOPATHOLOGY	
Specimen	**Finding**
Left adrenal biopsy	Low-grade spindle cell lesion with **positive EBV RNA hybridisation,** consistent with **EBV-associated smooth muscle tumour (EBV-SMT).**

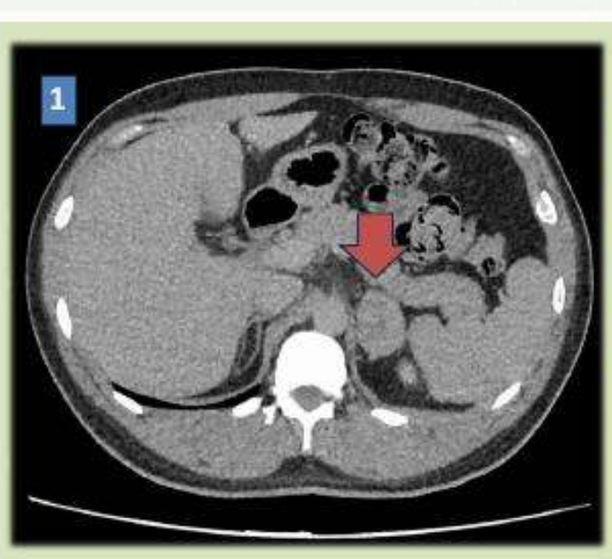


Figure 1:
Axial contrast-enhanced CT abdomen demonstrating a left adrenal mass with central hypodensity, suggestive of central necrosis (arrow)

Discussion & Conclusion

This case highlights the diagnostic dilemma in HIV patients with adrenal masses, where disseminated TB or histoplasmosis were the differential. Negative microbiological investigations were crucial in redirecting diagnosis. EBV-SMT arises due to loss of immune surveillance, allowing EBV-infected smooth muscle cells to proliferate**(1).** Its management is not standardized but typically involves immune reconstitution through ART and surgical resection for symptomatic or enlarging lesions.**(2)** The non-adherence to medications likely contributed to disease progression. A tissue diagnosis is paramount to avoid unnecessary empiric therapy and guide appropriate oncologic management **(3).**

In conclusion, EBV-SMT should be considered in the differential of adrenal masses in HIV patients when infectious etiologies are ruled out. Definitive tissue biopsy is essential **(3)**. Optimal outcomes depend on multidisciplinary approach combining surgical resection with ART to achieve virologic suppression and prevent recurrence.

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NAC26 EP070

The Shadow Behind Tuberculosis; When Poor CD4 Recovery Revealed Disseminated MAC

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Hospital Sultan Ismail Petra

THE SHADOW BEHIND TUBERCULOSIS

Disseminated *Mycobacterium Avium* Complex (MAC) Unmasked by Poor Immune Recovery in Advanced HIV

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BACKGROUND

Disseminated *Mycobacterium avium* complex (MAC) is a common opportunistic infection in advanced HIV (CD4<50 cells/μL). Its clinical features overlap with tuberculosis (TB), and co-infection may occur. Persistent symptoms or poor immune recovery despite adequate TB treatment should prompt consideration of disseminated MAC.

CASE SUMMARY

- 35-year-old man who has sex with men (MSM)
- Newly diagnosed with HIV infection
  - Initial CD4: 9 cells/μL | HIV VL: 321,000 copies/mL
- Presented with chronic diarrhea and weight loss
- Started on ART (Tenofovir / Emtricitabine / Efavirenz), cotrimoxazole prophylaxis and anti-TB therapy

CLINICAL TIMELINE

INITIAL PRESENTATION
- Chronic loose stool
- Weight loss
- CD4: 9 cells/μL
- HIV VL: 321,000 copies/mL

INITIAL INVESTIGATIONS
- Urine LAM: POSITIVE
- Gastric lavage AFB: POSITIVE
- Colonoscopy tissue TB PCR: NEGATIVE
- CECT abdomen:
  ✓ Lymphadenopathy in chest and abdomen
  ✓Liver lesion in segment IV

TREATMENT INITIATED
- Anti-TB therapy
- ART: TDF/FTC/EFV
- Started on 21/02/2025
- Cotrimoxazole 400/80mg, 2 tablets OD

AFTER 9 MONTHS OF ANTI-TB
- Diarrhea resolved
- Completed 9 months of anti-TB therapy
- HIV VL undetectable after 6 months of ART
- CD4 improved only to 82 cells/μL
- No weight gain

FURTHER EVALUATION
- Blood MTB culture grew MAC
- DST could not be performed due to sample contamination
- Repeat CT abdomen
- Repeat blood mycobacterial culture

CT ABDOMEN FINDINGS (SIMPLIFIED)

INITIAL CT
- ✓ Multiple enlarged lymph nodes in chest and abdomen
- ✓ Liver lesion in segment IV

REPEATED CT
- ✓ More and larger lymph nodes in chest and abdomen
- ✓ Long-segment bowel wall thickening
- ✓ Smaller liver lesion

LABORATORY

Repeated blood MTB culture

MAC ISOLATED

MANAGEMENT AND OUTCOME

TREATMENT FOR DISSEMINATED MAC
- Azithromycin 500mg OD
- Ethambutol 800mg OD (15mg/kg)
- Rifampicin 450mg OD (10mg/kg)

AFTER STARTING MAC TREATMENT
- Clinical improvement and weight gain
- CD4 count continued to rise
- Maintained virological suppression

DISCUSSION

This case highlights the diagnostic challenges of distinguishing disseminated MAC from TB in advanced HIV. Although initial investigations supported TB, the lack of clinical and immunological recovery despite completed anti-TB therapy and viral suppression prompted further evaluation. Progressive lymphadenopathy and repeatedly positive blood mycobacterial culture confirmed disseminated MAC. Timely initiation of MAC therapy resulted in marked clinical improvement, weight gain and immune recovery.

KEY TAKE-HOME MESSAGES

- In advanced HIV (CD4<50 cells/μL), disseminated MAC should be considered in persistent illness or poor immune recovery.
- Blood mycobacterial culture is essential for diagnosis.
- Co-infection with TB and MAC can occur.
- Early recognition and timely initiation of MAC therapy improves clinical and immunological outcomes.

CONCLUSION

- ✓ In patients with advanced HIV, failure to achieve clinical improvement or immune recovery despite adequate TB treatment and viral suppression should prompt evaluation for disseminated MAC.
- ✓ A high index of suspicion and appropriate microbiological investigation are crucial.

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NAC26 EP071

Implementing a Structured "Look Back" Audit Protocol to Identify Missed Opportunities for Earlier HIV Diagnosis in Malaysia

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Implementing a Structured "Look Back" Audit Protocol to Identify Missed Opportunities for Earlier HIV Diagnosis in Malaysia

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Background

Late HIV diagnosis (baseline CD4< 200 cells/uL) remains a critical challenge in Malaysia, leading to increased morbidity and opportunistic infections. Identifying systemic healthcare gaps and diagnostic delays is essential to transition from late treatment to early detection.

Objectives

To implement a "Look Back" audit tool to evaluate healthcare utilization, quantify missed clinical opportunities, and identify patient barriers among advanced HIV cases.

Methodology

Target Population: Newly diagnosed people living with HIV (PLHIV) enrolled in the ID clinic with baseline CD4< 200 cells/uL from April 2026 till June 2026.

Workflow: Administered by the HIV Counsellor via a 9-question EMR module covering the 3-year pre-diagnosis window.

Definition of Missed Opportunity (ALL 3 Criteria fulfilled):

- ≥1 Healthcare Contact in prior 3 years, **and**
- Presented with an HIV indicator condition (e.g. weight loss, herpes zoster, chronic diarrhoea (as mentioned in Figure 2)), **and**
- No HIV test was offered or documented.

Figure 1: Architecture of the Look Back Questionnaire



Figure 2: HIV Indicator Matrix[1]

Tier 1 (Strong Indicator)	Tier 2 (Moderate Indicator)
HIV test mandatory	HIV test should be offered
• Pneumocystis pneumonia (PCP) • Cerebral toxoplasmosis • Cryptococcal meningitis • Oesophageal candidiasis • Progressive multifocal leukoencephalopathy (PML) • Kaposi's sarcoma • Extrapulmonary TB	• Herpes Zoster (Shingles) — any age • Oral candidiasis (Thrush) • Unexplained weight loss (>10%) • Chronic diarrhoea (>1 month) • Prolonged fever (>1 month) • Recurrent bacterial pneumonia (≥2 episodes/year) • Severe or recurrent seborrhoeic dermatitis / psoriasis • Unexplained peripheral neuropathy • Mononucleosis-like illness • Unexplained lymphadenopathy

Reference: BHIVA/BASHH/BIS 2020 guidelines; WHO 2019. This list should be used as a prompt, not an exhaustive rule. Clinical judgement applies.

Figure 3: Determine Primary Places of Missed Opportunity

Result

- Total of 11 newly diagnosed PLHIV identified to have late diagnosis during the study period (3 months).
- 45.5% (5/11) of late presenting patients had a Confirmed Missed Clinical Opportunity prior to diagnosis.

Result Summary Table

Category	Variable	Percentage (%)
Primary Metric	Confirmed Missed Clinical Opportunity	5/11 (45.5%)
Missed Indicator Conditions (n=5)	Unexplained Weight Loss	4/5 (80%)
Missed Indicator Conditions (n=5)	Chronic Diarrhoea (> 2weeks)	3/5 (60%)
Areas of Missed Opportunity (n=5)	Private Clinic Government Clinic	4/5 (80%) 3/5 (60%)
Patient Reported Barriers (n=11)	Low self-perceived risk of HIV Felt Healthy	8/11 (72.7%) 6/11 (54.5%)

Discussion

Primary Care "Diagnostic Gap"

- Primary care is the critical battleground for early HIV detection in Malaysia.
- 80% of missed opportunities occurred at Private GPs and 60% at Government Clinic.

Predominant Missed Opportunity Indicators

- The predominant missed indicators were non specific constitutional symptoms such as unexplained weight loss and chronic diarrhoea.
- This requires high index of suspicion from primary care physician when patient presents with such symptoms.

The Fallacy of Risk-Based Screening

- A striking 72.7% of late presenters reported low self-perceived risk and 54.5% perceived themselves as healthy prior to diagnosis.
- These findings demonstrate that voluntary, patient-initiated testing or risk-based screening strategies inherently fail this population.
- Because patient do not recognize their risk, testing must be initiated by the healthcare provider based on clinical indicator conditions regardless of reported risk profiles.

Limitation

Preliminary Pilot Cohort- Findings reflect an initial pilot (n=11) at a single ID clinic; scaling the audit across national regional centers will expand data robustness.

Conclusion

The "Look Back" Audit confirms that nearly half of advanced HIV presentations represent missed clinical opportunities within primary care settings. Shifting national strategy toward provider-initiated, indicator-driven screening in primary care is essential.

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NAC26 EP072

Diagnostic Performance and Clinical Utility of Novel Urine Lipoarabinomannan (FujiLAM) Assay for Tuberculosis Screening in Patients with Advanced HIV/AIDS In A Single Centre Infectious Disease Inpatient Care.

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Poster ID: NAC26EP072

17TH SEPT - 19TH SEPT 2026
BANGI AVENUE CONVENTION CENTRE

DIAGNOSTIC PERFORMANCE & CLINICAL UTILITY OF NOVEL URINE LIPOARABINOMANNAN (FUJILAM) ASSAY FOR TUBERCULOSIS SCREENING IN PATIENTS WITH ADVANCED HIV/AIDS IN A SINGLE CENTRE INFECTIOUS DISEASES INPATIENT CARE

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INTRODUCTION

- People living with HIV (PLHIV) has up to 18 times higher risk of contracting tuberculosis.[1]
- Because of impaired immunity in PLHIV resulting in lower sputum load and fewer cavitating lesions, diagnosing PTB is especially challenging.[2]
- To increase rapid diagnosis of TB, WHO has recommended use of urine-based assay in this group of patients.[3]
- The urine FujiLAM is a next-generation urine-based assay which is able to detect lower LAM concentrations compared to the AlereLAM urine assay.[4]

AIM

To establish clinical accuracy of the FujiLAM urine assay compared to conventional microbiological tests in diagnosing TB in hospitalised PLHIV with CD4<200.

METHODOLOGY



A single-centre prospective study in an infectious diseases ward in Hospital Sungai Buloh, Malaysia. All PLHIV who were hospitalised and having CD4<200 were included.

Study Phase	1 May 2024 - 30 October 2024
Methodology	• PLHIV with CD4 < 200 with suspicion of TB were identified and recruited. • Microbiological investigations for TB were done (sputum for AFB, TB GeneXpert, TB PCR, MTB cultures, HPE if indicated). • Supporting imagings for confirmation of TB were also done (i.e. chest Xray, ultrasound abdomen, CT-Thorax / Abdomen / Pelvis

All recruited patients had urine sent for the FujiLAM urine-based TB assay.

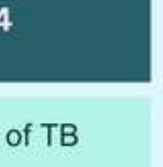


Implementation strategy

- **System change**: Continuous availablility of the FujiLAM urine-based assay in the wards to enable clinicians' easier access to the test.
- **Training and education**: Face-to-face and hands-on training.

Outcomes

- Clinical outcomes of patients - clinical profile, other co-infections, mortality, and microbiological confirmation of TB diagnosis.
- Alignment between FujiLAM urine assays, microbiological cultures, and antituberculous treatment.
- Accuracy of FujiLAM urine assay which was measured into sensitivity, specificity, PPV, and NPV.



RESULTS

Median age 38.5 years (IQR (31 - 48)

Majority were male [74/80 (92.5%)].

66/80 (82.5%) had CD4 < 100.

2. Diagnostic Performance

A. Against Microbiological Confirmation (N = 80)

FujiLAM	Microbiologically Confirmed TB	No Microbiological Confirmation	Total
Positive	10	5	15
Negative	4	61	65
Total	14	66	80

B. Against Clinical Treatment Initiation (N = 80)

FujiLAM	Received TB Treatment	Did Not Receive TB Treatment	Total
Positive	13	2	15
Negative	8	57	65
Total	21	59	80

C. Diagnostic Accuracy

Diagnostic Measure	Against Microbiological Confirmation (N = 80)	Against Clinical Treatment Initiation (N = 80)
Sensitivity	75.0% (47.6–92.7)	61.9% (38.4–81.9)
Specificity	95.3% (86.9–99.0)	96.6% (88.3–99.6)
Positive Predictive Value (PPV)	80.0% (51.9–94.0)	86.7% (59.5–98.3)
Negative Predictive Value (NPV)	93.8% (84.4–98.1)	87.7% (76.8–94.0)
Overall Accuracy	91.3% (81.6–96.7)	87.5% (77.0–94.1)
P value (Fisher exact test)	<0.001	<0.001



Urine LAM positivity strongly correlated with disseminated TB and extrapulmonary TB.



About 67% of patients with positive urine LAM had microbiologically-confirmed TB.

CONCLUSION

- The FujiLAM urine-based TB assay showed a high specificity (>92%) in PLHIV with advanced immunosuppression.
- This test is a rapid, non-invasive, point-of-care tool that supports early TB diagnosis in high-risk HIV patients.
- Utilising the FujiLAM urine-based assay as an integral test for TB screening in PLHIV may facilitate timely initiation of treatment, hence reduce mortality in resource-limited settings.

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NAC26 EP077

Recognition of an HIV Elite Controller in Primary Care: Lessons from a Rare Case

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Pejabat Kesihatan Daerah Rompin

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KEMENTERIAN KESIHATAN MALAYSIA

RECOGNITION OF AN HIV ELITE CONTROLLER IN PRIMARY CARE:

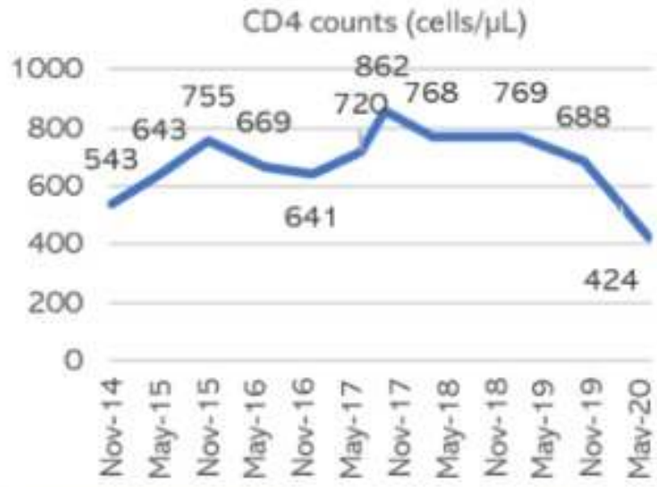
Lessons from a Rare Case

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Introduction

Elite controllers are a rare subgroup (<1%) of people living with HIV who maintain spontaneous viral suppression without antiretroviral therapy (ART). Despite sustained virological control, persistent immune activation and increased cardiovascular and other non-AIDS risks may remain. Current guidelines recommended ART for all PLHIV, including elite controllers, highlighting the importance of recognising this rare phenotype and addressing long-term health risks.

CD4 counts (cells/µL)



Case Report

A 47-year-old Chinese man diagnosed with HIV-1 infection in 2014 following screening for a history of unprotected sexual exposures. The diagnosis was confirmed using HIV Ag/Ab testing, Particle Agglutination, and ELISA. At diagnosis, he was asymptomatic with a CD4 count of 543 cells/µL and HIV-1 RNA detected at <20 copies/mL. Serial annual viral load measurements from 2014 to 2016 remained below the lower detection threshold despite receiving no antiretroviral therapy (ART), with preserved CD4 counts and no opportunistic infections. He received isoniazid preventive therapy during the first year following diagnosis. ART was initially not commenced in accordance with prevailing Malaysian guidelines, which recommended treatment based on CD4 count and specific clinical indications. ART was not initiated because, according to the prevailing Malaysian guideline at the time, treatment was recommended for patients with a CD4 count ≤350 cells/µL or those with specific clinical indications. Furthermore, he was not highly motivated to comply with treatment despite being in a serodiscordant relationship. He is married with a wife and 3 children. His wife is non-reactive to HIV till now. He remained asymptomatic and was followed up every 6 months. Following the introduction of universal ART, treatment was recommended, but he declined despite repeated counselling. After a period of interrupted follow-up while working offshore, he returned in 2020 and remained asymptomatic, with undetectable HIV-1 RNA despite never receiving ART, supporting an HIV elite controller phenotype. He had hypertension and type 2 diabetes mellitus and subsequently died from cardiovascular complications in 2021.

Discussion

Elite controllers represent fewer than 1% of people living with HIV and maintain spontaneous virological suppression without ART. Despite undetectable viraemia, persistent immune activation may increase cardiovascular and other non-AIDS morbidity. Current guidelines recommend ART for all people living with HIV, although evidence of long-term benefit specifically among elite controllers remains limited. This creates a primary care dilemma when an asymptomatic, virologically suppressed patient perceives limited benefit from lifelong ART and declines treatment. In this case, declining CD4 counts, a serodiscordant relationship and cardiovascular risk factors further strengthened the rationale for ART, highlighting the importance of longitudinal

Conclusion

Recognition of HIV elite controllers in primary care is essential despite sustained spontaneous viral suppression, as long-term non-AIDS risks remain. Family physicians play a key role in longitudinal monitoring, cardiovascular risk reduction, patient-centred ART counselling, shared decision-making and timely collaboration with Infectious Diseases specialists to optimise long-term outcomes.

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We wish to express our sincere gratitude to Mr. Mohd Alias bin Ibrahim, Assistant Medical Officer at Klinik Kesihatan Bandar Kuantan for his dedicated support in coordinating the patient's follow-up appointments and for his unwavering commitment to the patient's care throughout the course of follow-up until the patient passed away due to a cardiovascular complication.

NAC26 EP079

Complex HIV Care: A Rare Case of Itraconazole Precipitated Seborrheic Dermatitis Flare

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Complex HIV Care: A Rare Case of Itraconazole Precipitated Seborrheic Dermatitis Flare

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INTRODUCTION

Cutaneous lesions in retroviral disease (RVD) frequently present with atypical features. Misdiagnosis can lead to inappropriate systemic therapies that trigger severe, iatrogenic cutaneous adverse events, compromising patient care.

CASE REPORT

A 42-year-old Sarawakian male with RVD, virologically suppressed on antiretroviral therapy (CD4: 182 cells/µL), presented with an erythematous plaque over face and scalp scaling for two months. A skin biopsy demonstrated spongiotic and perivascular dermatitis, but tissue fungal stains, tissue fungal culture and bacterial culture were negative. Despite negative mycological workup, he was empirically prescribed oral itraconazole for suspected tinea capitis. Within five days, he experienced an explosive flare of extensive, itchy erythematous patches across his face, trunk, axillae, and groin. Dermatology revised the diagnosis to a severe flare of seborrheic dermatitis precipitated by itraconazole. The antifungal was discontinued, and he successfully recovered with topical corticosteroids.

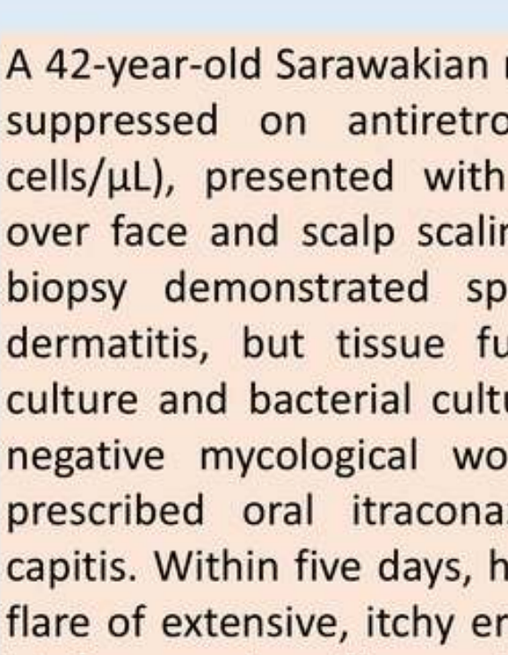


Figure 1. well-demarcated, confluent, erythematous plaques following oral itraconazole initiation

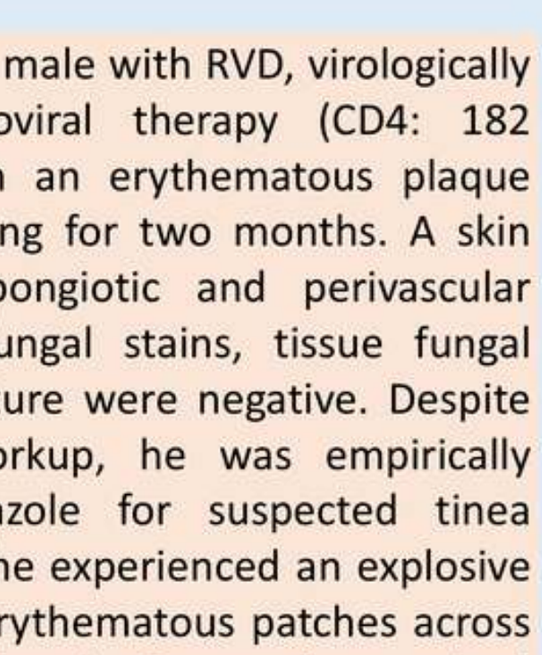


Figure 2. Resolution of the inflammatory facial plaques with minimal residual post-inflammatory changes post-treatment.

DISCUSSION

Seborrheic dermatitis is highly prevalent in RVD patients, often manifesting with heightened severity due to immune dysregulation.[1,2] While oral itraconazole is conventionally utilized to treat fungal dermatoses,[3] systemic azoles can rarely trigger paradoxical exacerbations or hypersensitivity reactions that mimic or worsen underlying inflammatory dermatoses.[4] In this patient, the rapid clinical deterioration highlights the danger of empiric systemic prescribing without definitive histopathological or microbiological confirmation.[5] It emphasizes the need to differentiate true drug eruptions from medication-induced flares of pre-existing conditions.[2,4]

CONCLUSION

Precise dermatological assessment is critical in HIV care to prevent avoidable drug-induced complications.[1,2] Clinicians must exercise extreme caution before introducing systemic antifungals for ambiguous lesions in immunocompromised hosts.[3,4] When a cutaneous condition worsens post-treatment, prompt cessation of the offending agent and multidisciplinary dermatological review are vital.[2,5]

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NAC26 EP085

Not Every Umbilicated Papule is Talaromycosis: Disseminated Histoplasmosis Masquerading as Disseminated MAC in Advanced HIV Infection

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PERSISTENT FEVER BEYOND TUBERCULOSIS:

DISSEMINATED HISTOPLASMOSIS

MASQUERADING AS TALAROMYCOSIS AND DISSEMINATED MAC IN ADVANCED HIV

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BACKGROUND

Disseminated histoplasmosis is an AIDS-defining opportunistic infection that remains under-recognized in Southeast Asia.

Its nonspecific presentation with prolonged fever, pancytopenia, lymphadenopathy and cutaneous lesions often mimics tuberculosis, disseminated MAC or talaromycosis, leading to delayed diagnosis and inappropriate empirical therapy.

PRESENTING FEATURES

- Prolonged fever
- Pancytopenia
- Generalized lymphadenopathy
- Polymorphic papulopustular lesions – face, ears, neck, upper trunk, soft palate
- CMV colitis
- Intestinal microsporidiosis



DISCUSSION

This case highlights the diagnostic challenge of disseminated histoplasmosis in advanced HIV.

Clinical overlap with TB, disseminated MAC and talaromycosis can lead to empirical therapy and delay in appropriate treatment.

Tissue diagnosis with histopathology and fungal molecular testing was key to establishing the diagnosis.

Undetectable Itraconazole levels were likely due to drug interaction with Efavirenz and/or impaired absorption, underscoring the importance of therapeutic drug monitoring.

Timely induction with Liposomal Amphotericin B resulted in rapid clinical improvement.

DIAGNOSTIC JOURNEY (TIMELINE)

Initial Presentation
Prolonged fever, constitutional symptoms, pancytopenia, generalized lymphadenopathy.

Initial Suspicions
Disseminated TB and disseminated MAC highly suspected.
Polymorphic mucocutaneous lesions also suggestive of disseminated talaromycosis.

TB & Mycobacterial Work-up
- Sputum AFB smear – Negative
- GeneXpert MTB/RIF – Negative
- Urine TB-LAM – Negative
- Lymph node MTB PCR – Negative
- Mycobacterial cultures – Negative

Empirical Therapy
Empirical anti-MAC therapy started at referring centre.

Definitive Diagnosis
Cervical lymph node biopsy:
Necrotizing lymphadenitis with fungal organisms
Tissue fungal PCR:
Histoplasma capsulatum detected

Therapeutic Challenge
Itraconazole initiated
TDM: Undetectable level (<0.02mg/L)
→ Inadequate drug exposure

Definitive Treatment
IV liposomal Amphotericin B 5mg/kg/day for 2 weeks
→ Marked resolution of fever and skin lesions

Consolidation Therapy
Due to persistently inadequate Itraconazole exposure, oral Voriconazole used as consolidation with therapeutic drug monitoring.

Complication during admission:
Salmonella spp. bacteremia
→ Treated with targeted antibiotics

KEY INVESTIGATIONS & RESULTS

- CD4 count: 10 cells/µL
- HIV viral load: 1.27 X 10^6 copies/mL
- CECT thorax / abdomen / pelvis: Generalized lymphadenopathy without focal lesions
- Lymph node histopathology: Necrotizing lymphadenitis with fungal organisms
- Tissue fungal PCR: *Histoplasma capsulatum* positive
- Itraconazole level: Undetectable (<0.02mg/L)

MANAGEMENT & OUTCOME

INDUCTION
IV Liposomal Amphotericin B 5mg/kg/day for 2 weeks

RESPONSE
Marked improvement
Resolution of fever
Significant improvement of skin lesions

CONSOLIDATION
Oral Voriconazole with therapeutic drug monitoring

OUTCOME
Clinical improvement
Treated for Salmonella spp. bacteremia
No further febrile episodes
Continued on ART and close follow-up

CONCLUSION

Disseminated histoplasmosis should be considered early in patients with advanced HIV presenting with prolonged fever of unknown origin, pancytopenia, generalized lymphadenopathy and polymorphic cutaneous lesions, even in regions where tuberculosis, talaromycosis and disseminated MAC are more prevalent.

Tissue diagnosis, fungal molecular testing and therapeutic drug monitoring are invaluable in establishing the diagnosis and guiding optimal antifungal therapy.

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NAC26 EP086

Impact of Antiretroviral treatment duration and CD4 count on Tuberculosis incidence and treatment outcome: A 3 year single center retrospective review

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Impact of ART duration and Cd4 count on TB incidence and treatment outcome: A 3-year single center retrospective review

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1. INTRODUCTION & OBJECTIVES

Tuberculosis (TB) remains the most important opportunistic infection and a leading cause of death among People Living with HIV (PLHIV) in Malaysia. Antiretroviral therapy (ART) restores immune function and has been shown to reduce the incidence of active TB by roughly two-thirds compared with no ART(1)(2). Additionally, Isoniazid preventive therapy (IPT) reduces the progression from latent infection to active TB(3)(4)(5).

Despite prompt ART initiation in Malaysia, the uptake of TB preventive therapy among PLHIV historically been low.

Characterizing local cohort trends regarding the timing of TB in relation to ART initiation, CD4 count at TB diagnosis, and treatment outcomes will inform whether more aggressive TB preventive therapy scale-up or other interventions are needed locally to improve mortality in PLHIV with TB.

Objectives:

- Primary Objective: To determine the occurrence and timing of TB diagnosis in relation to the duration of ART among PLHIV.
- Secondary Objectives: To determine the median CD4 count at the time of TB diagnosis, and to evaluate TB treatment outcomes in this cohort.

2. STUDY PROTOCOL & METHODS

Study Design: Retrospective cohort study of medical records from Hospital Sungai Buloh (2023–2025)

Eligible Adults: Adult patients (>=18 years) with confirmed active TB and HIV co-infection.

The 6-Month Reclassification :

To better accommodate for delay in immune restoration after initiation of ART the ART status at TB diagnosis was reclassified;

- **Never Started ART:** Naive patients and first-time starters on ART for <6 months at TB diagnosis, accounting for unestablished viral suppression and high early-treatment TB-IRIS risk.
- **Defaulted ART:** Untreated defaulters and recent restarts on ART for <6 months who remain in a state of profound, default-induced immune suppression.
- **Currently on ART:** Restricted strictly to patients established on continuous, treatment for >6 months, irrespective of the HIV viral load.

Analytical Methods: CD4 median ranks compared via Kruskal-Wallis. Definitive outcomes (Success vs. Mortality) tested via Chi-square. CD4 < 100 tested as an independent predictor of mortality via Multivariate Logistic Regression.

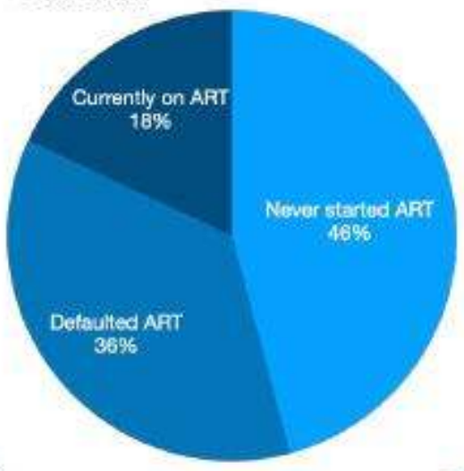
3. RESULTS (N = 227)

Baseline characteristics:

Baseline Parameter	Value (%)
Total Eligible Cohort	227 (100%)
Sex: Male / Female	212 / 15 (93.4%)
Citizenship: Malaysian	191 (84.1%)
Age: Median (IQR) years	40.7 (32.7, 48.6)
CD4 Count (cells/µL): Median (IQR)	65.5 (35.0, 195.5)

Reclassified ART Status at TB diagnosis:

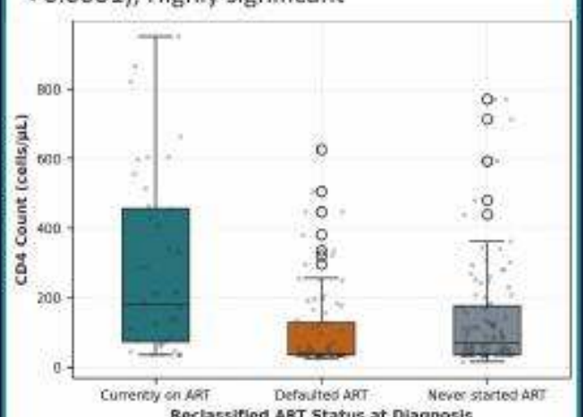
- Never Started ART (n = 104): Naive patients and first-time starters on ART for <6 months (n = 21) at TB diagnosis.
- Defaulted ART (n = 82): Untreated defaulters and recent restarts on ART for <6 months (n = 15)
- Currently on ART (n = 41): Restricted strictly to patients on treatment for >6 months.



CD4 count at TB diagnosis:

- Currently on ART (n=40): **178.5 cells/µL** (IQR: 73.0–456.25)
- Never started ART (n=101): **70.0 cells/µL** (IQR: 35.0–176.0)
- Defaulted ART (n=81): **35.0 cells/µL** (IQR: 35.0–129.0)

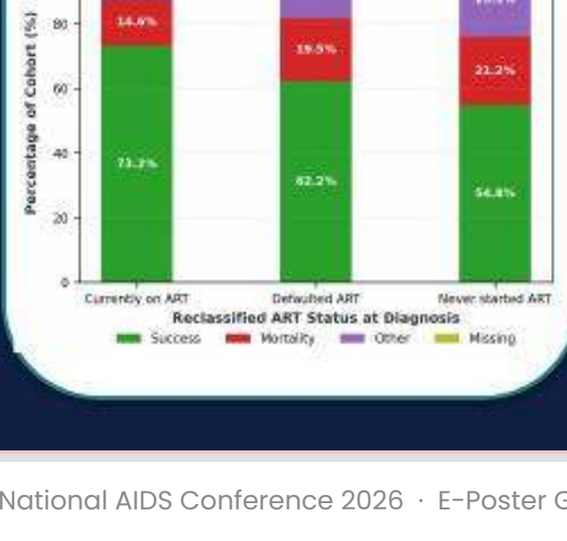
Kruskal-Wallis Result (chi2 = 28.427, df = 2), (p < 0.0001), Highly significant



TB treatment outcome:

- Currently on ART: 16.7% Mortality
- Defaulted ART: 23.9% Mortality
- Never started ART: 27.8% Mortality

Pearson Chi-Square Result (chi2 = 1.6917, df = 2), (p = 0.4292) - Not Statistically Significant).



CD4 < 100 cells/µL: Independent Predictor of Mortality:

Bivariate Analysis:

- Patients with CD4 < 100 cells/µL had an Odds Ratio (OR) of 7.10 (95% CI: 2.63–19.16, (p < 0.0001) for mortality.
- Exactly 34.3% (36 in 105) patients with CD4 < 100 cells/µL died compared to only 6.8% (5 in 73) of higher-CD4 patients.

Multivariate Logistic Regression:

- When controlling for age, citizenship, and extrapulmonary disease, CD4 < 100 cells/µL remained the only independent predictor of mortality with an adjusted Odds Ratio (aOR) of 7.20 (95% CI: 2.65–19.56, p = 0.000108).

100% Survival Threshold:

Not a single patient with a CD4 count of >=200 cells/µL died during active TB treatment (0/42 cases), proving that maintaining immune preservation above 200 is perfectly protective.

Time-to-Death & Ultra-Early Mortality:

- For the 44 patients who died, the median time from active TB diagnosis to death was only 13 days.
- 61.4% of deaths (27 out of 44) occurred within 30 days of active TB diagnosis.

6. DISCUSSION & RECOMMENDATIONS

1. PRIORITIZE RETURNED DEFAULTERS FOR IPT:

Returning defaulters (who re-engage in care at an extremely low median CD4 of 35.0 cells/µL) must be systematically screened and immediately initiated on IPT once active TB is ruled out.

2. EXPAND HIV TESTING & AGGRESSIVELY SCREEN PRE-ART:

The median CD4 of 70.0 cells/µL in the never-started group is pathognomonic of diagnostic delay. Community-based rapid HIV testing to capture HIV cases earlier. Clinicians must aggressively screen for active TB prior to initiating ART.

3. MANDATE TRACING FOR DEFAULTED PLHIV:

Defaulters demonstrate profound immune suppression (median CD4 35.0 cells/µL) and a 23.9% mortality rate. Establishing rapid, tracing for defaulted PLHIV and targeted retention-in-care programs for those at high risk is necessary.

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NAC26 EP088

When Treatment Becomes the Challenge: A Therapeutic Dilemma in Disseminated Tuberculosis with HIV and Viral Hepatitis Coinfection

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WHEN TREATMENT BECOMES THE CHALLENGE: A THERAPEUTIC DILEMMA IN DISSEMINATED TUBERCULOSIS WITH HIV AND VIRAL HEPATITIS COINFECTION

KEMENTERIAN KESIHATAN MALAYSIA
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INTRODUCTION

Managing tuberculosis(TB)inpatients with multiple complex comorbidities presents significant therapeutic challenges.

We report a complex case of disseminated TB in a middle-aged Orang Asli man with coexisting advanced Human Immunodeficiency Virus (HIV) infection and chronic Hepatitis B (HBV) and Hepatitis C (HCV) coinfections.

His clinical course was complicated by recurrent transaminitis, persistent thrombocytopenia and prolonged interruptions of anti-TB therapy, resulting in considerable challenges in maintaining effective and continuous treatment.

This case illustrates the clinical complexities of balancing adequate TB treatment against the risks of treatment-related toxicity while simultaneously managing multiple coinfections and maintaining continuity of care within a rural primary care setting.

CASE REPORT

Patient | Background



45-year-old Orang Asli man



Chronic Smoker



Chronic Alcohol use

- Diagnosed with **disseminated tuberculosis** with smear-positive pulmonary TB on 27th November 2025.
- Sputum acid-fast bacilli (AFB) was **positive (1+) x1** .
- Sputum GeneXpert detected ***Mycobacterium tuberculosis***.
- CECT thorax demonstrated a loculated right pleural effusion with mediastinal and upper abdominal lymphadenopathy suggestive of active TB.
- T11 vertebral body ill-defined lytic lesion with minimal T11/T12 end plate erosion seen; differentials are spondylodiscitis or bone metastases.
- Spinal TB was then clinically suspected based on an insidious history of persistent localized back pain with spinal tenderness; however, MRI of the spine was not performed for radiological confirmation.
- **His disease was considered disseminated, involving pulmonary, pleural, probable miliary and spinal TB.**
- His initial presentation was severe, with respiratory distress requiring intubation and mechanical ventilation.
- His management was complicated by advanced HIV infection following loss to follow-up since 2017, with an HIV viral load of 2,004,000 copies/mL on presentation, alongside chronic Hepatitis B and C coinfections, with HBV DNA 21,900 IU/mL and HCV RNA approximately 4 million IU/mL.
- Anti-TB therapy was initiated with an SEO-based regimen on 28th November 2025 due to transaminitis.
- Treatment was complicated by recurrent transaminitis and progressive pancytopenia, requiring multiple interruptions and sequential drug rechallenges.
- Following improvement , isoniazid and rifampicin were gradually reintroduced and a full-dose HREO regimen was achieved by 28th December 2025.
- Bone marrow aspiration and trephine biopsy were offered to investigate the pancytopenia but were declined by the patient.
- In view of spinal involvement, the respiratory team recommended treating the patient as neuro-TB for a total duration of 12 months, with two months of HREO followed by ten months of HR.
- Antiretroviral therapy (ART) with tenofovir/emtricitabine and efavirenz was subsequently initiated in January 2026.
- **At the patient's request, he was discharged and transferred to *Klinik Kesihatan* for continuation of daily DOT and shared care under Hospital Segamat for close monitoring.**

DURING FOLLOW-UP AT *KLINIK KESIHATAN*

- Anti-TB treatment was given under daily DOT alongside ART. His treatment was complicated by recurrent liver enzymes derangement and persistent thrombocytopenia, likely due to multiple factors including anti-TB drugs, HIV, chronic HBV/HCV coinfection, possible TB-related bone marrow involvement, and chronic liver disease.
- **On 25th February 2026, after approximately 59 days of HREO, his liver function worsened (AST 246 U/L, ALT 57 U/L, ALP 221 U/L, bilirubin 59 µmol/L; AST/ALT ratio 4.3).**
- **Following discussion with the Infectious Diseases team, both anti-TB treatment and ART were withheld and hospital admission was strongly advised.**
- He remained off anti-TB treatment for approximately six months after declining hospital admission and was lost to follow-up.

RE-ENGAGEMENT & CURRENT MANAGEMENT

- Following repeated tracing efforts, he was successfully re-engaged in care at the *Klinik Kesihatan.*
- At this visit, he remained clinically well with no fever, respiratory distress, neurological symptoms or bleeding manifestations. His liver function gradually improved, although thrombocytopenia persisted.
- By August 2026, his platelet count was 71 × 10^9/L, with ALT 31.8 U/L and AST 71 U/L. The patient was keen to resume ART but remained hesitant about restarting anti- TB therapy and attending specialist follow-up due to fear of hospital admission.
- First sputum culture in December 2025 showed MTB complex detected. Phenotypic DST was contaminated; molecular DST showed no rifampicin or isoniazid resistance mutations. Latest repeat sputum AFB smear was negative, while GeneXpert MTB/RIF showed no Mycobacterium tuberculosis detected.
- Following successful re-engagement and counselling by the Family Medicine Specialist, he attended the Chest Clinic at HTAA, Kuantan. A 12-month HREL regimen was planned, with cautious stepwise reintroduction of isoniazid followed by rifampicin. Given logistical challenges and the patient's hesitancy towards hospital admission, the rechallenge was undertaken on an outpatient basis, with close hepatotoxicity monitoring at the primary care level.

Table 1. Clinical Timeline

Timeline	Findings
Nov 2025	Disseminated TB diagnosed → SEO started due to transaminitis
Dec 2025	Sequential drug rechallenge → HREO achieved
Jan 2026	ART commenced
25 Feb 2026	Liver function worsened → Anti-TB + ART withheld
Mar–Aug 2026	Off treatment ~6 months → Declined admission / lost to follow-up
Aug 2026	Successfully re-engaged (AFB negative | GeneXpert negative ALT 31.8 | AST 71 | Platelets 71 ×10^9/L)
Current plan	12-month HREL regimen ; Stepwise INH → rifampicin rechallenge; Close outpatient hepatotoxicity monitoring

DISCUSSION

This case highlights the complexity of managing disseminated TB with HIV and chronic HBV/HCV coinfections, where effective treatment must be balanced against significant drug toxicity. [1,2]

Recurrent liver derangements and persistent thrombocytopenia limited treatment options, particularly the safe reintroduction of isoniazid and rifampicin after a prolonged treatment interruption.

Following re-engagement, the choice of anti-TB regimen remains to be determined by the Respiratory team, taking into consideration his previous drug toxicity, persistent thrombocytopenia, prolonged treatment interruption and repeat microbiological results.

Close collaboration between primary care, Respiratory and Infectious Diseases teams is therefore essential to determine a safe and effective treatment strategy.

Importantly, this case demonstrates the value of patient-centred care and continued engagement. Despite his reluctance to restart anti-TB therapy and fear of hospital admission, his concerns and treatment preferences were acknowledged while counselling continued.

During clinic follow-up, he remained cooperative with infection-control measures, consistently wearing a face mask and displaying no aggressive behaviour. A respectful and non-confrontational approach helped maintain the therapeutic relationship and eventually enabled re-engagement with specialist care.

This highlights the crucial role of primary care in listening to patients, building trust, addressing their concerns and maintaining continuity of care, particularly in complex TB management within a rural setting.

CONCLUSION

Individualise treatment : Complex TB with multiple coinfections requires careful balancing of disease control and treatment toxicity

Engage, not disengage : Persistent, respectful and patient-centred communication can rebuild trust and improve treatment engagement.

Collaborate across levels of care : Close coordination between primary care, Respiratory and Infectious Disease teams is essential for safe treatment re-initiation and continuity of care.

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Double-Edged Immunity: Relapsing Warm Autoimmune Haemolytic Anaemia in an Immunocompromised Host from Human Immunodeficiency Virus

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DOUBLE-EDGED IMMUNITY: RELAPSING WARM AUTOIMMUNE HAEMOLYTIC ANAEMIA IN AN IMMUNOCOMPROMISED HOST FROM HUMAN IMMUNODEFICIENCY VIRUS

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An advanced HIV infection causes progressive immune dysfunction due to chronic inflammation, opportunistic infections, malnutrition and bone marrow suppression.[1] While haematological issues are common in HIV, autoimmune haemolytic anaemia where autoantibodies destroy red blood cells is an uncommon presenting manifestation.[2]

Age / sex	Comorbidity	Risk factor
55, male	Diabetes mellitus	Previous IVDU

DISEASE TIMELINE

2023 - Warm AIHA diagnosed

DAT: polyspecific AHG 4+, anti-IgG 3+, anti-C3d 4+ with auto-anti-IgG identified. Prednisolone + azathioprine started subsequently lost to follow-up.

July 2024 - Severe relapse, Hb 4.6 g/dL

Parameter	Result	Normal Range
Haemoglobin	4.6 g/dL	13–17
Reticulocytes	12%	0.5–2.5
LDH	350 U/L	<248
Total bilirubin	104 µmol/L	3–17
Direct bilirubin	20 µmol/L	0–5

Jaundice, tea-coloured urine. Transfusion was complicated by antibody-related crossmatch interference. IV methylprednisolone + transfusion → Hb 7.5 with steroid tapering.

Jul 2024 - HIV & disseminated TB uncovered

Viral load(VL) 7,310 copies/mL, CD4 294cells/µL, urine TB-LAM positive, sputum AFB negative. HAART + anti-TB therapy started concurrently.

Dec 2025 - Virologic success, immunologic failure

VL suppressed to 111 copies/mL, but CD4 falls to 119. Discordant response despite adherence.

Mar 2026 - Second haemolytic relapse, Hb 5.8 g/dL

Haemolysis on background immunosuppression. Azathioprine stopped, prednisolone escalated, mycophenolate mofetil 500 mg BD started as steroid-sparing agent.

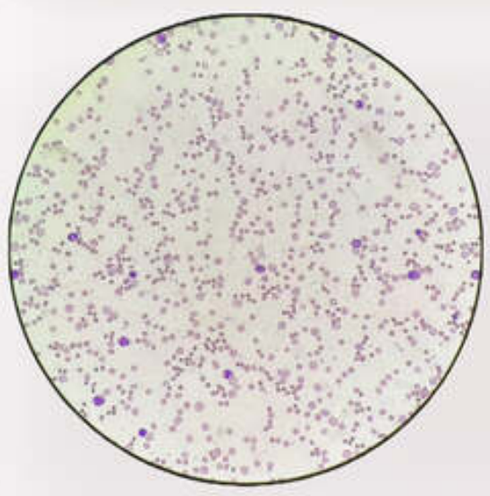


Figure 1: *Peripheral blood film showing features of warm autoimmune haemolytic anaemia: anisocytosis with numerous spherocytes, polychromasia reflecting reticulocytosis and scattered nucleated red cells, consistent with active immune-mediated haemolysis.*

DISCUSSION

Immunodeficiency → **Warm AIHA** ← **Immune dysregulation**

The paradox of HIV

Profound immunodeficiency coexists with chronic immune activation and B/T-cell dysregulation, predisposing to autoimmune phenomena including AIHA.[2,3]

Relapsing haemolysis

Recurrent, severe warm AIHA despite corticosteroids and azathioprine highlights the difficulty of controlling autoimmunity in an immunocompromised host.

Virological ≠ immunological recovery

Despite viral suppression to 111 copies/mL, CD4 declined from 294 to 119 cells/µL - incomplete immune reconstitution.[4]

The therapeutic dilemma

Escalating immunosuppression for refractory AIHA must be weighed against opportunistic infection risk, especially with prior tuberculosis.[5]

CLINICAL MESSAGE

Persistent or recurrent AIHA should prompt consideration of underlying HIV. Conversely, viral suppression should not be equated with immune recovery.

CONCLUSION

This case highlights the complex intersection of advanced HIV infection and autoimmune hemolytic anemia. Persistent immunological vulnerability despite virological suppression further complicates management. Early detection and treatment of HIV remain the key to End HIV 2030.

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NAC26 EP091

Plasmablastic Lymphoma in the Era of ART: A Case Report

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PLASMABLASTIC LYMPHOMA IN THE ERA OF ART: A CASE REPORT

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INTRODUCTION

Plasmablastic lymphoma (PBL) is a rare, aggressive non-Hodgkin lymphoma (NHL) strongly associated with advanced HIV and Epstein-Barr virus (EBV). This is a case of advanced PBL to highlight that historical treatment non-adherence can trigger AIDS-defining malignancies, even when a patient eventually achieves virological control.

CASE REPORT

A 46-year-old male with HIV diagnosed in 2014, presented with a rapidly enlarging, fungating right neck mass and significant weight loss. Notably, his disease course involved multiple treatment defaults requiring a switch to second line antiretroviral therapy (ART) in July 2023. At presentation in October 2025, despite having achieved a suppressed viral load (62 copies/mL) and a CD4 count of 204 cells/µL, the prolonged immune dysfunction from his past non-adherence culminated in malignancy.

Histopathology of the mass confirmed PBL, revealing a plasma cell neoplasm positive for Epstein–Barr encoded region RNA on in situ hybridisation (EBER-ISH), with a highly aggressive Ki-67 index (>90%). CT staging identified a 6cm necrotic submandibular mass with liver and pulmonary lesions, consistent with Ann Arbor Stage IV disease.

The patient received cytoreductive cyclophosphamide followed by a bortezomib-based chemotherapy regimen (Velcade-EPOCH). After three cycles, he demonstrated a profound clinical response with the resolution of the fungating mass, avoiding surgical intervention. Currently, he continues systemic chemotherapy alongside uninterrupted second-line ART.



Figure 1: Clinical photographs of the right neck mass. (1A) Pre-treatment image (October 2025) showing a large, fungating, exophytic mass. (1B) Post-treatment image (January 2026) demonstrating a marked clinical response.

DISCUSSION

PBL is an aggressive EBV-associated tumor originally described as jaw lesions in HIV patients[1]. The pathogenesis of PBL in advanced HIV involves profound CD4+ depletion combined with complex genetic mutations, and EBV co-infection[2]. Impaired immune surveillance allows latent EBV to drive B-cell transformation, a mechanism supported by EBER-ISH positivity in 70–80% of cases[3], including this patient. Early recognition of PBL and prompt initiation of combined oncological and HIV-directed therapy with strict virological control, can yield remarkable clinical responses even in advanced, highly proliferative disease[4].

CONCLUSION

This case illustrates the severe oncogenic consequences of prolonged immune dysfunction resulting from ART non-adherence. It highlights that patients with a history of treatment default remain at high risk for rare, aggressive malignancies like PBL.

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NAC26 EP092

Performance of a Self-reported Modified Frailty Phenotype for Identifying Frailty and its Association with Health Outcomes among People Aging with HIV on Antiretroviral Therapy in Malaysia

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UNIVERSITI MALAYA

PERFORMANCE OF A SELF-REPORTED MODIFIED FRAILTY PHENOTYPE FOR IDENTIFYING FRAILTY AMONG PEOPLE AGING WITH HIV ON ANTIRETROVIRAL THERAPY IN MALAYSIA

AGEVANTAGE ADVANCING EQUITY IN AGING

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INTRODUCTION

Fried's frailty phenotype (FFP) is a tool for identifying frailty. It consists of five domains: unintentional weight loss, exhaustion, weakness, slow walking speed, and low physical activity. Some domains require objective measurements of walking speed and grip strength which require calibrated equipment and is time-consuming to implement in busy clinics. Consequently, modifications to the FFP have been developed to improve its practicality for implementation. We explored a modified version of the FFP (MFP) previously validated in the CFAR Network of Integrated Clinical Systems cohort (CNICS) in the US and assessed its potential as a pragmatic alternative to the conventional FFP.

OBJECTIVES

- Assess the validity of the MFP, a simple four-item questionnaire-based tool to identify frailty
- Assess the associations of the MFP and FFP with poor health outcomes including falls, sarcopenia, disability and mortality risk

METHODOLOGY

Inclusion criteria:
- Age ≥ 35 years
- On stable ART for at least 12 months
- No acute illness at recruitment point



People living with HIV (n=213)
Universiti Malaya Medical Centre (UMMC)

Frailty criterion	FFP	MFP
Unintentional weight loss	*"In the last year, have you lost >10 lbs (4.5kg) unintentionally?"*: yes/no	
Exhaustion	*"I felt that everything I did was an effort" and/or "I could not get going"*: ?": yes/no	
Low activity level	7-item IPAQ questionnaire	Ability to do *"Usual Activities"*: No problem/slight/moderate/severe problem/unable to do
Weakness	Hand grip measure	Level of *"Mobility"*: No problem/slight/moderate/severe problem/unable to do
Slowness	Gait speed measure	

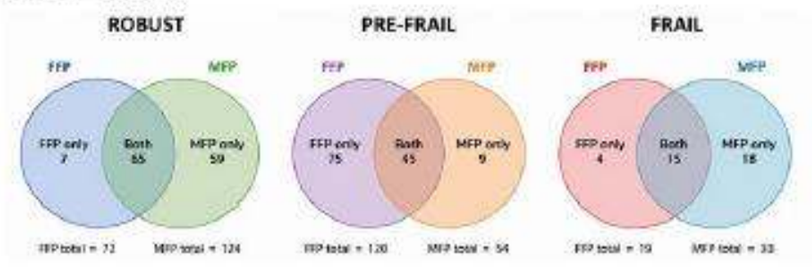
Spearman Correlation and Receiver Operator Characteristic (ROC) → Analysis used to assess MFP criterion validity against FFP (gold standard)

Multiple Regression → Explore health outcomes associated with frailty measured by FFP vs MFP:
- Sarcopenia (Asian Working Group for Sarcopenia 2019 cut-off)
- Falls (number of falls reported in a year)
- Disability (WHODAS 2.0)
- Mortality risk (VACS Index 2.0)

RESULTS AND DISCUSSION

1) Descriptive analysis of the analytic cohort (n=213)
- median age of 51 years (IQR: 44-57)
- predominantly male (77.9%)
- Chinese (70.4%)
- median duration of living with HIV of 13 years (IQR: 10-17).

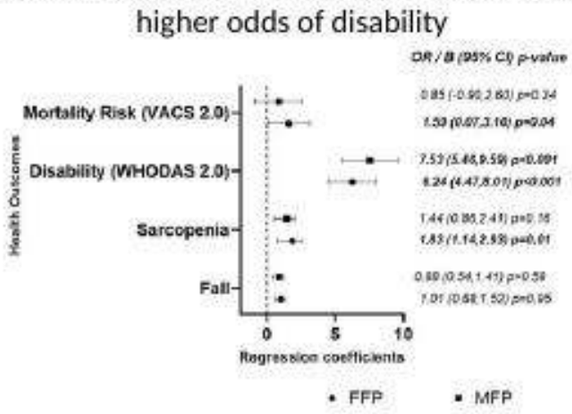
2) Robust/Pre-frail/Frail classification of PWH according to MFP vs FFP



Numbers indicate the number of participants in each frailty category; overlapping areas represent participants classified into the same category by both the MFP and FFP. **MFP and FFP were moderately correlated** (Spearman's ρ=0.55, p<0.001)

3) Excellent discrimination of individuals with frailty using MFP
- MFP correctly classified 89.5% of PWH as frail or non-frail at cut-off≥2 (AUC: 0.91 [95% CI 0.83-0.99]; sensitivity: 78.9%, specificity: 90.6%).
- MFP showed poor discrimination for prefrailty, correctly classifying only 60.7% of PWH (AUC: 0.59 [95% CI 0.51-0.67]).

4) Regression analysis
- Individuals classified as frail with FFP had significantly higher odds of sarcopenia, disability and mortality risk
- Individuals classified as frail using MFP had a significantly higher odds of disability



5) Overall
- The self-reported MFP identified frailty better than pre-frailty in our cohort.
- Similar findings have been reported for other self-reported frailty screening tools.
- This likely reflects that objective functional decline precedes perceived functional difficulty, causing many pre-frail individuals to report no limitations [1].
- In resource-limited settings, the MFP may help prioritize care for individuals with more advanced frailty.
- Both the MFP and FFP were significantly associated with disability.
- This supports previous evidence linking frailty and disability in PWH and reinforces the construct validity of the MFP [2].

CONCLUSION

Our findings suggest that when time and resources are available, objective measures may provide greater sensitivity than self-reported measures. However, practicality and feasibility should also be considered when implementing frailty screening in busy clinics. The MFP may serve as a low-burden initial frailty screening tool when objective measurements are not feasible.

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NAC26 EP094

Beyond the Poor Prognosis: Diagnostic Challenges and Favourable Outcomes in HIV Associated Progressive Multifocal Leukoencephalopathy

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BEYOND THE POOR PROGNOSIS

DIAGNOSTIC CHALLENGES & FAVOURABLE OUTCOMES IN HIV-ASSOCIATED PROGRESSIVE MULTIFOCAL LEUKOENCEPHALOPATHY

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INTRODUCTION

PML is a severe JCV-related CNS opportunistic infection in advanced HIV.
Variable neurology and initially unrevealing CSF can delay diagnosis.
These two cases demonstrate favourable functional recovery after ART.

CASE REPORT

CASE 1 — **35-year-old man**

PRESENTATION

Fever, weight loss
Altered mentation, left hemiparesis

DIAGNOSTIC COURSE

CT: right parietal lesion → stroke mimic
Initial CSF: unremarkable
Repeat CSF: JCV detected
MRI: asymmetric bilateral T2/FLAIR lesions

CD4 58 — **PML established**

ART TDF/FTC/DTG

CD4 58 → 267 | ADL independent
RETURNED TO WORK

CASE 2 — **34-year-old man**

PRESENTATION

6-month cognitive slowing
Slurred speech, blurred vision, behavioural change

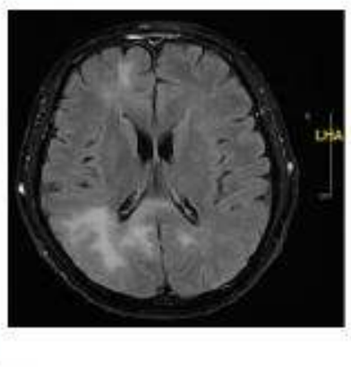
DIAGNOSTIC COURSE

HIV RNA: 303,000 copies/mL
Initial CSF: unremarkable
MRI: bilateral parieto-occipital lesions
Repeat CSF: JCV detected

CD4 125 — **PML established**

ART TDF/FTC/EFV

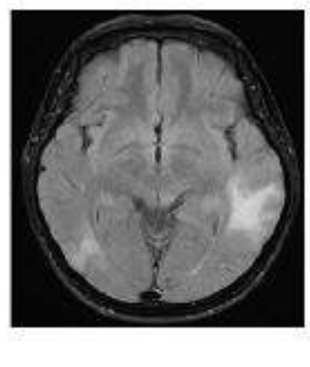
RNA 303,000 → 21 | CD4 125 → 199
SPEECH/VISION RESOLVED • ADL INDEPENDENT



SHARED DIAGNOSTIC SIGNAL

HIV → MRI → JCV+

Persistent neurological deficits + unrevealing initial CSF
→ EARLY MRI + REPEAT CSF JCV TESTING



DISCUSSION

SIMILARITIES

- Advanced HIV
- Initial CSF unrevealing
- MRI + repeat CSF confirmed PML
- ART → immune restoration → ADL independence

KEY DIFFERENCES

- Case 1: stroke-like focal deficit; CD4 58
- Case 2: cognitive / speech / visual syndrome; CD4 125
- Different ART regimens; favourable recovery in both

CLINICAL OUTCOME — THE KEY MESSAGE

Both patients achieved immune recovery and regained functional independence despite advanced HIV-associated PML.

CONCLUSION

PML does not invariably predict a poor functional outcome. Early recognition + ART + immune restoration + rehabilitation can enable substantial neurological recovery.

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NAC26 EP095

Emergence of Dolutegravir Resistance in Treatment Experienced PLHIV - A Single-Center Case series

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A Case Series of Five People Living with HIV: Resistant and Non-compliance to Dolutegravir Antiretroviral Therapy

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INTRODUCTION

- Dolutegravir (DTG) has a high genetic barrier to resistance; however, integrates strand transfer inhibitor (INSTI) resistance is increasingly recognized in real-world clinical settings.
- A modelling analysis conducted in South Africa forecasts HIV drug resistance to DTG rising from 18% in 2023 to 42% by 2035.
- This case series describes five people living with HIV (PLHIV) with DTG resistance in the context of treatment interruption or non-adherence, highlighting the need for ongoing viral load monitoring, resistance testing and adherence support.

OBJECTIVES

- To evaluate the clinical characteristics, resistance pathways, and outcomes of PLHIV developing genotypic DTG resistance at a tertiary infectious disease centre in Malaysia.
- To focus on the consequences of non-compliance and actual or functional DTG monotherapy in the development of resistance.

METHODOLOGY

- Descriptive case series: five PLHIV at Hospital Sungai Buloh, Selangor, Malaysia.
- HIV drug resistance testing by next-generation sequencing (NGS) on Illumina MiSeq, interpreted using Stanford HIV Drug Resistance Database.
- Data collected: ART histories, viral load dynamics, adherence, and resistance across NRTI, NNRTI, INSTI and PI.
- Analysis: descriptive, no inferential statistics (case series).
- Ethics: conducted as part of routine clinical care with institutional approval.

RESULTS

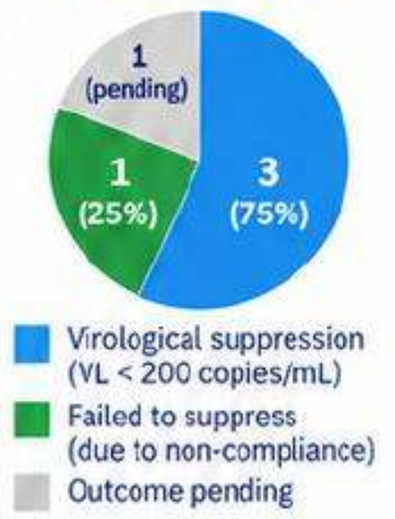
OVERALL FINDINGS (N = 5)

- All five patients were adult males with prolonged ART exposure (>5 years) and documented treatment interruption or non-adherence.
- Primary drivers of DTG resistance included actual DTG monotherapy following treatment default (n = 2) and functional DTG monotherapy due to unsuppressed viral loads and co-existing NRTI resistance.
- G118R was detected in 4 of 5 cases (80%), with E138K/A, T66I, N155H, R263K and T74M occurring in 4 cases, and K65R in 2 cases.
- All isolates retained complete susceptibility to boosted protease inhibitors (PIs).
- After switch to PI-based salvage regimens: 3 patients (75%) achieved virological suppression (VL < 200 copies/mL), 1 patient (25%) failed to suppress due to persistent non-compliance, and 1 outcome pending.

Figure 1. Key Mutation Frequency Across 5 Patients



Figure 2. Outcomes After Switch to Boosted PI Regimens



CASE SERIES DATA

Case 1	Case 2	Case 3	Case 4	Case 5
• Adult male with long ART exposure and persistent virological failure with multi-class resistance. Documented non-compliance. • Switched back to TDF/FTC plus ATV/r.	• Defaulted treatment and took DTG only during TB treatment period. • Resistance included NRTI, NNRTI and INSTI mutations. • Improved after switch to TDF/FTC plus ATV/r.	• Complicated ART history with toxicity/intolerance (e.g. hyperbilirubinaemia) and intermittent non-compliance. • Improved after switch to AZT/3TC plus PI-based treatment.	• Defaulted prescribed regimen and took DTG alone. • In major resistance mutations G118R and E138A. • Switched to TDF/FTC plus ATV/r.	• Long treatment interruption and non-compliance. • High-level INSTI resistance including G118R and E138K/A/T with T74M accessory mutation. • Later on AZT/3TC and DRV/r.
Latest (Feb 2026)	**Latest (June 2025)**	**Latest (Feb 2026)**	**Latest (May 2026)**	**Latest (June 2026)**
CD4: - **VL:** 236,000	**CD4:** 370 **VL:** ND	**CD4:** 431 **VL:** 105	**CD4:** 381 **VL:** 5,190	**CD4:** 258 **VL:** 212
Key mutations (June 2025) NRTI: M184V, P225H NNRTI: L33F INSTI: T66I, G118R, N155H, S147G PI: none	**Key mutations (Feb 2024)** NRTI: D67N, M184V NNRTI: K103N, V106I, H221Y INSTI: R263K PI: none	**Key mutations (Feb 2023)** INSTI: T66I, G118R, E138K Accessory: E157Q	**Key mutations (Dec 2025)** INSTI: G118R, E138A Accessory: G163R	**Key mutations (May 2025)** NRTI: K65R NNRTI: K103H, Y181C, G190A INSTI: G118R, E138K/A/T Accessory: T74M
Current regimen (Feb 2026)	**Current regimen (June 2025)**	**Current regimen (Feb 2026)**	**Current regimen (May 2026)**	**Current regimen (June 2026)**
TDF/FTC and ATV/r	TDF/FTC and ATV/r	AZT/3TC and LPV/r	TDF/FTC and ATV/r	AZT/3TC and DRV/r
Outcome Ongoing viraemia (236,000 copies/mL); non-compliance.	**Outcome** Virological suppression (VL ND).	**Outcome** Virological suppression (VL 105 copies/mL).	**Outcome** Virological response (VL 5,190 copies/mL).	**Outcome** Virological suppression (VL 212 copies/mL).

DISCUSSION

- DTG resistance developed in the context of actual or functional monotherapy, driven by treatment interruption and non-adherence.
- G118R was the most common INSTI mutation (80%), consistent with emerging real-world reports.
- Cases demonstrated complex treatment histories including toxicity, intolerance and defaulting.
- All isolates remained susceptible to boosted PIs, which provided effective salvage options.
- Strengthened viral load monitoring, improved access to resistance testing, and adherence support are essential to prevent DTG resistance.

CONCLUSION

- In this case series, DTG resistance emerged under conditions of actual or functional monotherapy, with G118R as the dominant INSTI mutation.
- Three of five patients achieved virological suppression after switching to PI-based regimens, highlighting the continued efficacy of boosted PIs.
- Improving viral load monitoring, resistance testing access, and adherence support is crucial to prevent the emergence of DTG resistance.

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TRACK A · CLINICAL

NAC26 EP096

Impact of Dolutegravir-Based Antiretroviral Therapy (ART) on Weight Gain in Human Immunodeficiency Virus (HIV) Patients: A Preliminary Study in Malaysia

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UNIVERSITI MALAYA

IMPACT OF DOLUTEGRAVIR-BASED ANTIRETROVIRAL THERAPY (ART) ON WEIGHT GAIN IN HUMAN IMMUNODEFICIENCY VIRUS (HIV) PATIENTS: A PRELIMINARY STUDY IN MALAYSIA

FAKULTI FARMASI
Faculty of Pharmacy

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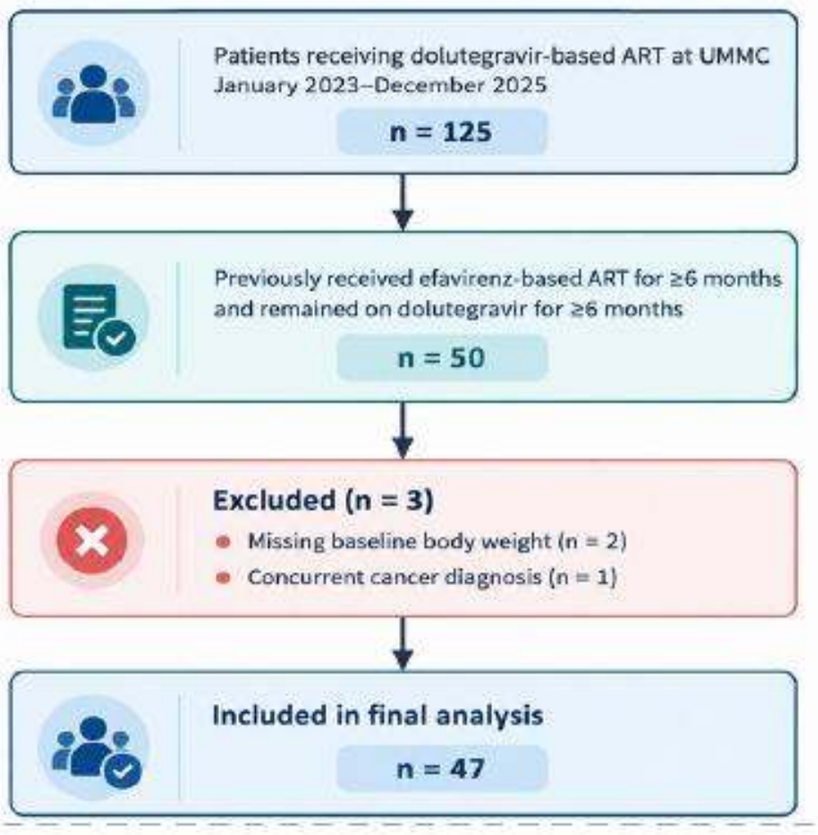
INTRODUCTION

Dolutegravir-based antiretroviral therapy (ART) is recommended as first-line treatment for human immunodeficiency virus (HIV) because of its efficacy and tolerability. However, increasing evidence links dolutegravir with weight gain and potential metabolic complications. Malaysian data remain limited.

OBJECTIVES

To evaluate the percentage of weight gain in Malaysian HIV patients receiving dolutegravir-based regimens, compared to those who remained on efavirenz-based therapy.

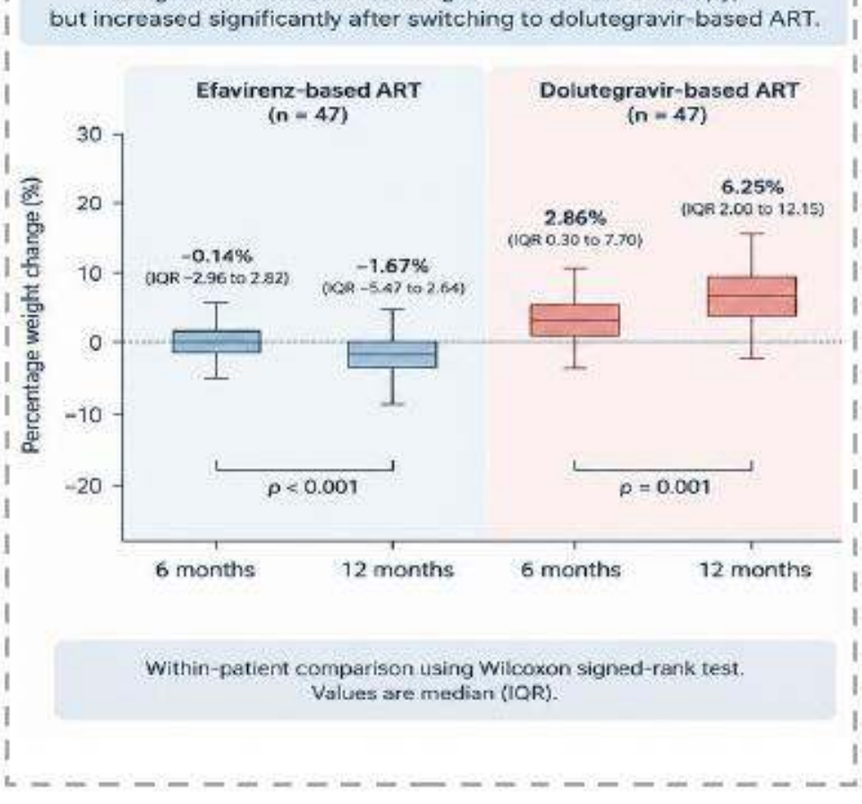
METHODOLOGY



RESULTS

1 Weight change during efavirenz-based and dolutegravir-based ART

Weight remained stable during efavirenz-based therapy, but increased significantly after switching to dolutegravir-based ART.



Within-patient comparison using Wilcoxon signed-rank test. Values are median (IQR).

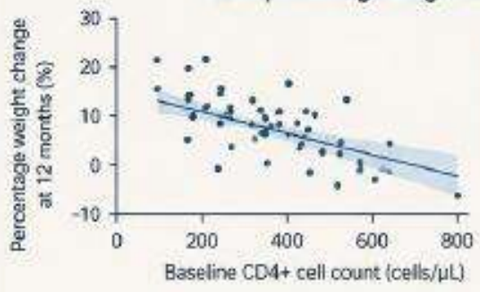
RESULTS (CONT')

2 Prevalence of clinically significant weight gain after dolutegravir initiation

The proportion of patients with clinically significant weight gain (>10%) increased from **19.0%** at 6 months to **39.1%** at 12 months.



Higher baseline CD4+ cell count was associated with lower percentage weight change.



B = −0.034
95% CI −0.058 to −0.010
p = 0.010

DISCUSSION

Dolutegravir-associated weight gain may reflect improved tolerability, appetite changes, and metabolic effects beyond the "return-to-health" phenomenon. Lower baseline CD4+ counts may further indicate a contribution from immune reconstitution.

CONCLUSION

Switching from efavirenz-based to dolutegravir-based ART was associated with significant and progressive weight gain. These preliminary Malaysian data support closer weight and metabolic monitoring after dolutegravir initiation

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NAC26 EP098

Persistent Cardiopulmonary Abnormalities in Advanced HIV: A Multifactorial Diagnostic Challenge

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SASMEC @ International Islamic University Malaysia

PERSISTENT CARDIOPULMONARY ABNORMALITIES IN ADVANCED HIV: A MULTIFACTORIAL DIAGNOSTIC CHALLENGE

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INTRODUCTION

Advanced HIV disease (AHD) may present with complex cardiopulmonary diagnostic challenges due to overlapping opportunistic infections (OIs), chronic lung disease, metabolic abnormalities and treatment-related toxicity. We describe persistent bradycardia and pulmonary abnormalities during treatment of multiple OIs.

CASE REPORT

A 71-year-old woman living with AHD, bronchiectasis and ART interruptions presented with fever, lethargy, exertional dyspnoea and severe odynophagia for three weeks. Investigations demonstrated marked viraemia and a critically low CD4 count. She developed respiratory distress and was treated for Pneumocystis jirovecii pneumonia (PCP), oesophageal candidiasis and infective bronchiectasis. Trimethoprim-sulfamethoxazole allergy necessitated primaquine and clindamycin for PCP; fl uconazole and intravenous cefepime were given for candidiasis and infective bronchiectasis.
During treatment, she developed sinus bradycardia with QTc prolongation and hyperkalaemia. A potential fluconazole-primaquine interaction prompted switching fluconazole to micafungin. Following drug withdrawal and hyperkalaemia correction, QTc prolongation resolved; however, bradycardia persisted, requiring atropine and coronary care unit admission.

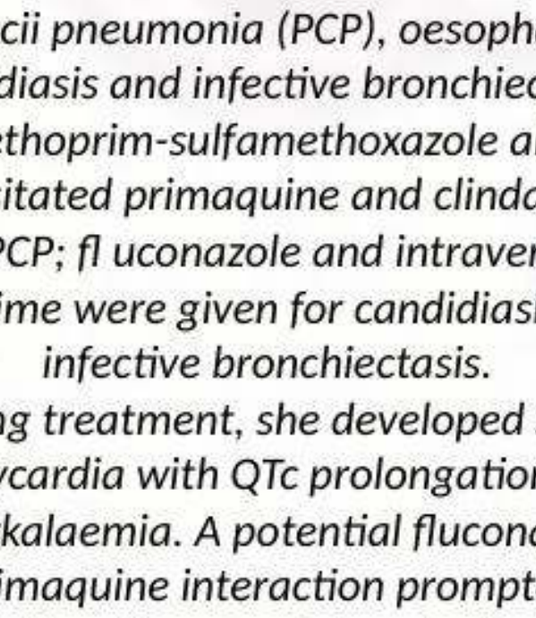


Figure 1: *Plain radiograph of chest shows bronchiectatic changes*

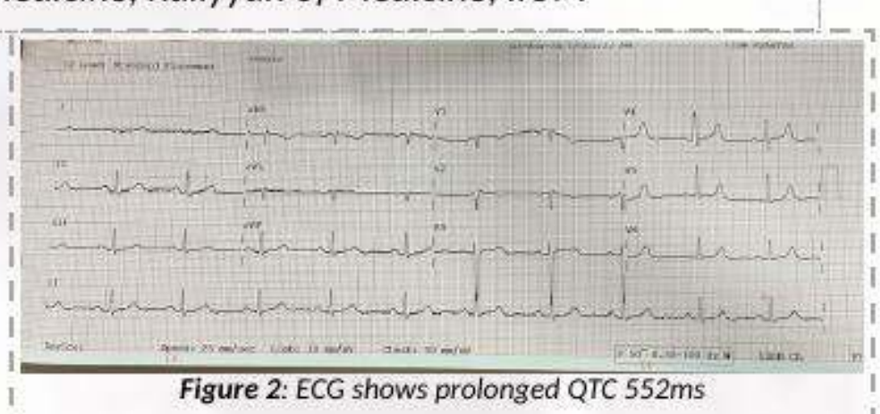


Figure 2: *ECG shows prolonged QTC 552ms*

Suboptimal respiratory improvement after seven days of PCP therapy prompted further evaluation. CT thorax demonstrated persistent bilateral ground-glass opacities, septal thickening, subpleural reticulation and atelectatic changes. Despite absent CMV retinitis, possible CMV pneumonitis and myocarditis were subsequently considered and treated, with CMV PCR and serology results awaited.

DISCUSSION

Cardiopulmonary complications in AHD are multifactorial, involving uncontrolled viraemia, inflammation, OIs, metabolic disturbances and drug toxicity. QTc resolution supported a reversible drug-metabolic contribution, whereas persistent bradycardia raised concern for CMV myocarditis. Suboptimal PCP response with persistent CT abnormalities suggested concurrent CMV pneumonitis. Bronchiectasis further complicated assessment.

CONCLUSION

Persistent cardiopulmonary abnormalities in AHD should prompt reassessment for concurrent OIs, drug toxicity and metabolic disturbances.

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NAC26 EP099

Clinical implication of switching from Efavirenz to Dolutegravir in patients with opioid use disorder receiving methadone

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NAC26 EP100

The Dilemma of Initiating Anti-TB Therapy in Severe HIV-Induced ITP: A Case Report

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THE DILEMMA OF INITIATING ANTI-TB THERAPY IN SEVERE HIV-ASSOCIATED ITP: A CASE REPORT

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INTRODUCTION

Thrombocytopenia in advanced HIV is multifactorial, often stemming from opportunistic infections, bone marrow suppression, or iatrogenic drug toxicity. HIV-associated immune thrombocytopenic purpura (ITP) is a critical differential, but its coexistence with active tuberculosis (TB) creates a profound therapeutic dilemma. Initiating anti-TB therapy is challenging due to the risk of rifampicin-induced haematological toxicity. Furthermore, standard ITP treatment requires corticosteroids, which are controversial in immunocompromised patients during active infections.

CASE REPORT

A 57-year-old male with advanced HIV (CD4 count 122 cells/µL) presented with fever, headache, and weight loss. Investigations revealed severe thrombocytopenia (16 × 109/L) and concurrent pulmonary TB. Standard anti-TB therapy (rifampicin, isoniazid, ethambutol, and pyrazinamide) was initiated, but his platelets plummeted to 5 × 10^9/L within days, prompting withdrawal for suspected rifampicin toxicity.

A bone marrow aspirate showed reactive marrow without malignancy or infiltrative infection. The thrombocytopenia was refractory to platelet transfusions and intravenous immunoglobulin (IVIG). Due to persistent headache and MRI evidence of basal ganglia infarction, he received empirical high-dose intravenous dexamethasone for suspected TB meningitis.

Following corticosteroid administration, his platelet count rapidly surged to 121 × 10^9/L, and then normalised after a few days. This dramatic response definitively isolated HIV-associated ITP as the primary cause of his severe cytopenia. Achieving haematological stabilisation via steroids safely facilitated the stepwise reintroduction of anti-TB medications.

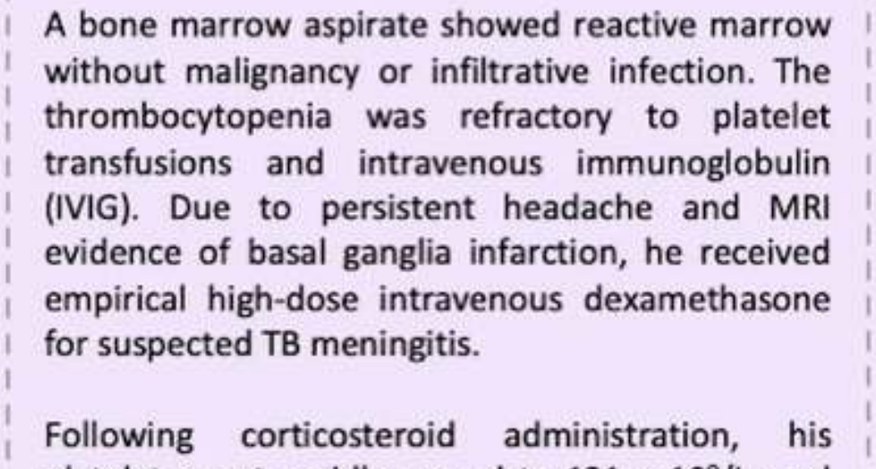


Figure 1: Clinical timeline of the patient's platelet trend (x10^9/L) alongside treatment received.

DISCUSSION

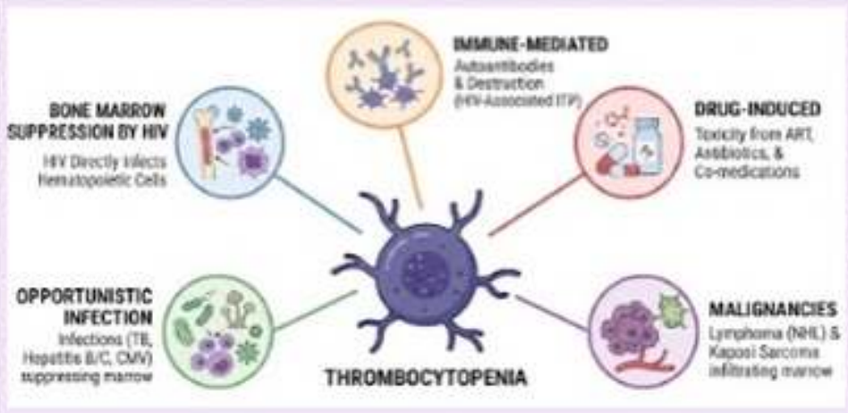


Figure 2: Causes of thrombocytopenia in HIV patients.

Thrombocytopenia in HIV can arise from several mechanisms as illustrated above. Among these, HIV-associated ITP is one of the most frequent hematologic complications in people living with HIV[1]. Although the incidence has declined in the antiretroviral therapy (ART) era, it remains common among patients who present late or are poorly adherent to treatment[2].

Management of HIV-associated ITP focuses on preventing bleeding rather than achieving normal platelet counts. ART is the cornerstone, as viral suppression alone often leads to platelet recovery. For patients with severe thrombocytopenia (<20 × 10^9/L) or bleeding, corticosteroids remain the first line treatment. IVIG may be used for rapid but transient improvement, especially when steroids are contraindicated. Thrombopoietin receptor agonists (eltrombopag, romiplostim), rituximab, or splenectomy may be considered in refractory cases, though all carry risks in advanced HIV[3].

In this case, dexamethasone was administered for suspected TB meningitis and provided the secondary benefit of rapid platelet recovery.

CONCLUSION

Managing cytopenias in advanced HIV involves navigating complex aetiologies. This case highlights that a robust response to corticosteroids is a crucial diagnostic indicator for HIV-associated ITP. Recognising this steroid responsiveness allows clinicians to effectively manage cytopenia and safely bridge immunocompromised patients back to essential anti-TB therapy.

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NAC26 EP101

From Negative Donor Screen to Seroconversion: Acute HIV Infection Unmasked by Salmonella Gastroenteritis

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Acute HIV Infection Unmasked By *Salmonella* Gastroenteritis

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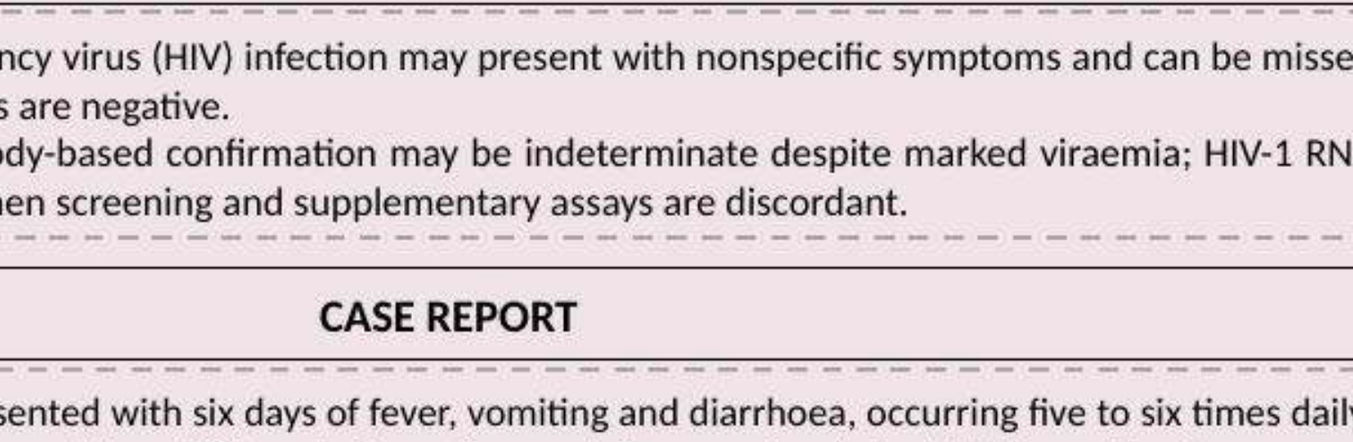
INTRODUCTION

Acute human immunodeficiency virus (HIV) infection may present with nonspecific symptoms and can be missed when recent screening results are negative.
During early infection, antibody-based confirmation may be indeterminate despite marked viraemia; HIV-1 RNA testing is therefore critical when screening and supplementary assays are discordant.

CASE REPORT

A 21-year-old Indian man presented with six days of fever, vomiting and diarrhoea, occurring five to six times daily. His white blood cell count was 7.4 × 10^9/L and C-reactive protein was elevated at 5.70 mg/dL; dengue and leptospirosis tests were negative. Stool culture grew non-typhoidal *Salmonella*, while blood culture showed no growth. In view of the *Salmonella* gastroenteritis and his recent history of an anal fissure, HIV screening was performed. He denied recognised HIV risk factors but was a regular blood donor. His latest donation on 7 June 2024, approximately one month before admission, had tested negative for HIV Ag/Ab and HIV nucleic acid testing.

KEY DIAGNOSTIC TIMELINE



MANAGEMENT

- Intravenous ceftriaxone for non-typhoidal *Salmonella* gastroenteritis.
- Antiretroviral therapy: tenofovir disoproxil fumarate/emtricitabine plus dolutegravir, initiated soon after diagnosis.

ONE-MONTH FOLLOW-UP

- **HIV-1 RNA:** 7,250,000 → 92 copies/mL.
- **CD4 count:** 282 → 509 cells/µL.
- **Repeat LIA:** HIV-1 positive with gp41, p24 and p17 antibodies; confirming seroconversion.
- Patient remained clinically well and reported adherence to ART.

INTERPRETATION

Rapid virological suppression, immune recovery and evolving antibody reactivity supported the initial diagnosis of acute HIV infection.

DISCUSSION

- A recent negative donor screen does not exclude early HIV infection because a short NAT window period remains.
- Diarrhoea can occur during acute seroconversion; early gastrointestinal mucosal CD4 depletion may increase susceptibility to enteric pathogens.
- The sequence of reactive CMIA/PA, gp41-only LIA, high HIV-1 RNA and later multi-band antibody positivity documents evolving seroconversion.
- When serology is discordant, nucleic acid testing prevents missed or delayed diagnosis.
- Early ART produced rapid viral suppression and CD4 recovery, reducing morbidity and onward transmission risk.

CONCLUSION

Acute HIV infection should be considered in patients presenting with unexplained diarrhoea, including *Salmonella* gastroenteritis, even following a recent negative HIV screen. Prompt initiation of antiretroviral therapy achieved rapid viral suppression and CD4 recovery, highlighting the importance of donor counselling and awareness of the HIV diagnostic window period.

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NAC26 EP103

Association between HIV-Related Stigma and Loss-to-Follow-Up among People Living with Human Immunodeficiency Virus: A Pilot Study

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5th NATIONAL AIDS CONFERENCE 2026
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ASSOCIATION BETWEEN HIV-RELATED STIGMA AND LOSS-TO-FOLLOW-UP AMONG PEOPLE LIVING WITH HUMAN IMMUNODEFICIENCY VIRUS: A PILOT STUDY

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INTRODUCTION

Retention in HIV care is essential for achieving viral suppression and reducing HIV-related morbidity and mortality [1].

Loss to follow-up (LTFU) remains a challenge among people living with HIV (PLHIV) and may result in treatment interruption and poor clinical outcomes [2].

HIV-related stigma may negatively influence healthcare-seeking behaviour, treatment adherence, and engagement with HIV care, potentially contributing to LTFU [3,4,5]

Evidence on the association between HIV-related stigma and LTFU among PLHIV in Malaysia remains limited.

OBJECTIVE

To determine the association between HIV-related stigma and LTFU among PLHIV receiving care at tertiary hospital.

METHODOLOGY

Study Design & Settings
- Cross-sectional observational study
- Hospital Tengku Ampuan Rahimah (HTAR)

Sampling Method & Study Population
- Simple random sampling
- PLHIV started ART

Data Collection Method
- Berger HIV Stigma Scale
- Sociodemographic
- Laboratory parameters & LTFU status)

Analysis Method
- Logistic regression analysis with SPSS (association between stigma score with LTFU)

RESULTS

Sample Size
- n=50
- Age ranging from 18 - 65 years old
- 68% Malays, 16% Indians, 14% Chinese, 2% Others
- 84% of subjects are employed

Gender
- Male 84% (n=42)
- Female 16% (n=8)

Social History
- Married: 17%
- Consumption alcohol : 6%
- Smoker: 16%
- Illicit Drug: 4%

Duration of ART
- <1 year: 18%
- 1–5 years: 54%
- 5–10 years: 16%
- >10 years: 12%

Loss-to-follow-up

Variable	Logistic Regression	
	OR (95% CI)	p Value
Stigma Score	0.953 (0.915–0.992)	0.017

- 22% of subjects classified as LTFU
- Each one-unit increase in stigma score was associated with a 4.7% reduction in the odds of LTFU.

DISCUSSION

Previous study reported that HIV-related stigma may contribute to treatment interruptions, withdrawal from healthcare services, and poorer long-term retention in care which suggests that individuals experiencing higher levels of stigma may be more likely to LTFU [7].

Present study found an inverse association, where each one-unit increase in stigma score was associated with a 4.7% reduction in the odds of LTFU (OR = 0.953, 95% CI: 0.915–0.992; p = 0.017).

Possible reason is that LTFU may be influenced by other factors besides HIV-related stigma [8]. Evangeli et al. (2014) found that LTFU was also associated with factors such as older age, greater reliance on family and friends, and having children [8]. This suggests that LTFU may be affected by several personal and social factors, rather than stigma alone [8].

The differences between the present study and previous studies may also be due to differences in the study population, healthcare setting, and how stigma and LTFU were measured. Further studies with a larger sample size are needed to better understand the relationship between HIV-related stigma and LTFU.

CONCLUSION

HIV-related stigma score was significantly associated with LTFU among PLHIV receiving care at HTAR. The inverse association observed warrants further investigation to understand the behavioural, social, and healthcare-related factors influencing retention in HIV care. Further studies with larger sample sizes are needed to clarify the relationship between HIV-related stigma and LTFU among PLHIV in Malaysia.

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NAC26 EP104

Prevalence and Risk Factors of Metabolic-Associated Steatotic Liver Disease Among People Living with HIV in Malaysia

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All contents | Track A list | Track B list | Track C list

NAC26EP104

Prevalence and Risk Factors of Metabolic-Associated Steatotic Liver Disease Among People Living with HIV in Malaysia

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🚨 SILENT METABOLIC CRISIS 🚨
1 in 4 (26.8%) Virally Suppressed PLWH has MASLD
Undetectable virus. Undetected fatty liver.
The battle is not over
A silent chronic pathology threatening to undermine Malaysia's HIV triumph

BACKGROUND

- MASLD is the leading liver disease globally and an emerging comorbidity in PLWH.
- Chronic HIV infection and ART drive unique metabolic perturbations amplifying steatosis risk.
- In Asia, data on MASLD in PLWH, excluding hepatitis co-infection and alcohol remain scarce.

OBJECTIVE

To quantify the prevalence of MASLD and identify independent risk factors in virally suppressed Malaysian PLWH on stable ART.

METHODS

Study design: Cross Sectional Study
Setting: Universiti Malaya Medical Centre, Infectious Diseases Clinic
Data collection:

- **Duration:** Six months
- **Inclusion criteria:** Viral suppression (<200 copies/ml) for at least a year
- **Exclusion criteria:** Severe liver disease, advanced HIV infection, pregnancy, active cancer, bile duct blockage, or severe heart failure
  MASLD Definition: CAP ≥248 dB/m (FibroScan) OR positive ultrasound.
- Exclusions: Chronic Hep B/C surface antigen (+), significant alcohol (>20g/d women; >30g/d men)
- Fibrosis QC: Baveno VII, ≥10 valid shots, IQR/M ≤30%

RESULTS

Variable	Healthy (n=183)	MASLD (n=67)	p
Age (years)	45.4 ± 10.6	48.3 ± 10.5	0.064
Male Sex	83.3%	89.5%	0.096
BMI (kg/m²)	23.6 (21.1–26.4)	28.3 (26.3–31.2)	**<0.001**
Waist Circumference (cm)	84 (79–93)	101 (93–109)	**<0.001**
Metabolic Syndrome	13.4%	50.8%	**<0.001**
Diabetes Mellitus	9.2%	31.3%	**<0.001**
Hypertension	26.9%	47.0%	**0.005**
Dyslipidemia	76.2%	85.1%	0.144
Triglycerides (mmol/L)	1.2 (0.9–1.5)	1.7 (1.2–2.3)	**0.008**
HDL (mmol/L)	1.22 (1.0–1.4)	1.10 (0.9–1.3)	0.065
ALT (U/L)	36 (24–48)	60 (42–85)	**<0.001**
GGT (U/L)	52 (30–70)	96 (60–130)	**<0.001**
HIV Duration (years)	13.5 (8–18)	15.2 (10–20)	0.038
ART Duration (years)	11.2 (7–15)	13.1 (8–17)	0.021
Ever Efavirenz	64.5%	43.1%	**0.005**
Current INSTI Use	23.0%	32.8%	0.110
Current CD4 (cells/mm³)	540 (410–720)	580 (450–790)	0.310

MULTIVARIABLE LOGISTIC REGRESSION

Waist Circumference (per cm) — RISK FACTOR ▲
aOR = 1.09 95% CI 1.03-1.15

Alanine Transaminases (per U/L) — RISK FACTOR ▲
aOR = 1.03 95% CI 1.00-1.06

Ever Efavirenz (EFV) ★ — PROTECTIVE ▼
aOR = 0.28 95% CI 0.08-0.96

★ *The Efavirenz Paradox: Historical EFV is independently protective likely reflecting less weight gain vs modern INSTIs (dolutegravir).*

FIBROSCAN: STEATOSIS & FIBROSIS



✓ **93.4%** cACLD ruled out | **97.5%** No portal hypertension

23.3% of assessed patients have SEVERE steatosis (S3: High Risk)

9.9% advanced fibrosis (F3-F4): early detection window still open for intervention

KEY MESSAGES & CLINICAL IMPLICATIONS (CONCLUSION)

1. WE SHOULD Screen every virally suppressed PLWH with waist circumference as relying on BMI may not be informative.
2. Routine FibroScan in HIV clinics, 87.6% remain at F0-F1.
The intervention window is OPEN. Do not wait till cirrhosis. Cirrhotic means missing the actionable phase.
3. ART choice is a metabolic decision: EFV's paradoxical protection vs. INSTI lipogenesis suggests modern regimens carry metabolic debt.
Metabolic risk profiling must accompany virologic efficacy when choosing ART.
4. The 4th 95 is quality of life and metabolic wellness: Viral suppression alone is enough for HIV care.
Screening, early intervention (lifestyle ± GLP-1 RAs), and integration into comprehensive care complete the picture.

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Declaration

We declare no competing interests
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Acknowledgement:
This research was supported by the BKP Grant (No: BKP034-2024-ECRG) and the Department of Medicine RSF Grant, Universiti Malaya, Kuala Lumpur, Malaysia

Medical students who contributed to data collection: Mhehrunnisa binti Mohammad Shabbir, Ahmad Ikram bin Saufi, Mohammad Luqman bin Mohd Hisham, Ryan Constantine Libamin, Sathyaswaruben a/l Arunakiri, Harsuraj Singh a/l Kuldip Singh

NAC26 EP105

Age-Dependent pTau-217 Elevation in PWH: Associations with Systemic Immune Activation, CNS Injury, and CVD Risk

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Age-Dependent pTau-217 Elevation in PWH: Associations with Systemic Immune Activation, CNS Injury, and CVD Risk

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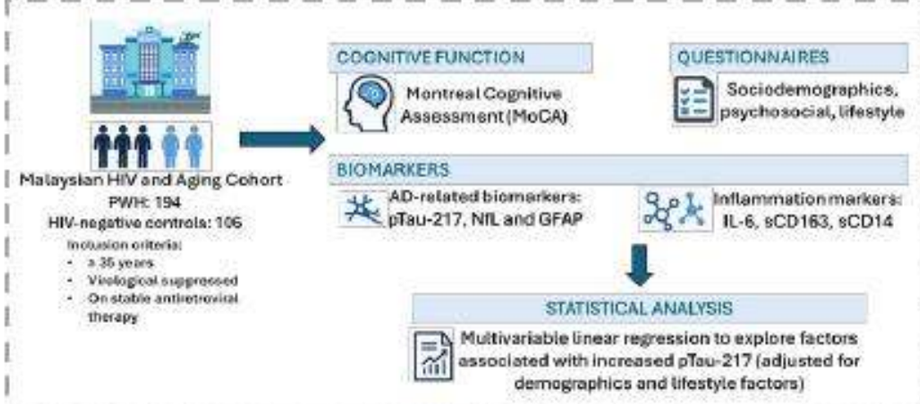
INTRODUCTION

- As people living with HIV age, they face an increased risk of Alzheimer's disease (AD) and related neurocognitive disorders with ongoing low grade chronic inflammation[1,2].
- Plasma phosphorylated tau-217 (pTau-217) is a sensitive biomarker of AD-related tau pathology[3].
- Although chronic immune activation, comorbidities and neural injury are overrepresented in PWH, it remains unclear how these factors relate to plasma pTau-217 levels.

OBJECTIVES

To investigate plasma pTau-217 levels and its clinical and biological correlates in treated PWH and age-matched people living without HIV (PWoH).

METHODOLOGY



RESULTS & DISCUSSION

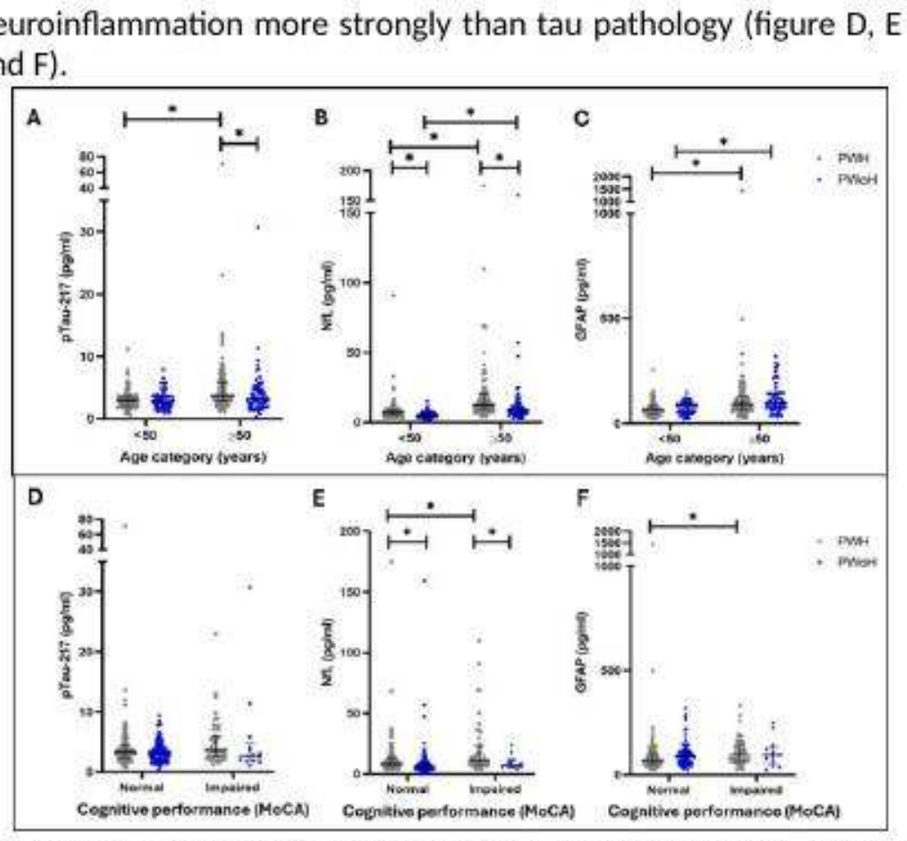
(1) Subject characteristic

	PWH (n=194)	PWoH (n=106)
Age	51.1 (44.0 - 57.1)	50.8 (39.4 - 59.4)
Sex, n (%)*		
Male	150 (77.3)	53 (50.0)
Female	44 (22.7)	53 (50.0)
Ethnicity, n (%)		
Chinese	140 (72.2)	68 (64.2)
Indian	20 (10.3)	14 (13.2)
Malay	32 (16.5)	22 (20.8)
Others	2 (1.0)	2 (1.9)
Smoking, n (%)*		
Never	100 (51.5)	87 (82.1)
Ex smoker	40 (20.6)	13 (12.3)
Current smoker	54 (27.8)	6 (5.7)
Audit-C	0.0 (0.0 – 1.0)	0.5 (0.0 – 1.0)
MoCA category*		
Normal	146 (75.3)	93 (87.7)
Impaired	48 (24.7)	13 (12.3)
Frailty phenotype, n (%)		
Robust	66 (34.0)	38 (35.8)
Pre-frail	110 (56.7)	64 (60.4)
Frail	18 (9.3)	4 (3.8)
eGFR*		
<90 mL/min/1.73m²	12 (6.2)	1 (0.9)
≥90 mL/min/1.73m²	182 (93.8)	105 (99.1)
Diabetes (Yes), n (%)	30 (15.5)	12 (11.3)
Hypertension (Yes), n (%)	91 (46.9)	49 (46.2)
Dyslipidemia (Yes), n (%)*	111 (57.2)	45 (42.5)
Inflammation markers		
sCD163 (x10^5 pg/ml)	3.30 (2.46 - 4.06)	3.21 (2.39 - 4.35)
IL-6 (pg/ml)	1.41 (0.87 - 2.30)	1.22 (0.76 - 1.98)
sCD14 (x10^6 pg/ml)*	1.66 (1.42 - 2.04)	1.30 (1.13 - 1.49)
hsCRP (pg/ml)	1.44 (0.55 - 3.73)	1.00 (0.50 - 2.45)
pTau-217 (pg/ml)	3.39 (2.32 - 4.75)	2.98 (2.03 - 4.30)
NfL (pg/ml)*	9.56 (6.75 - 14.32)	6.85 (4.66 - 9.59)
GFAP (pg/ml)	74.20 (56.43 -116.84)	89.07 (59.63 - 117.82)
HIV-related factors		
Current CD4 cell count (cells/ul)	620 (463 - 811)	
Current CD8 cell count (cells/ul)	736 (528 - 913)	
CD4/CD8 ratio	0.86 (0.63 - 1.20)	
Duration living with HIV (years)	12.00 (10.00 - 17.25)	

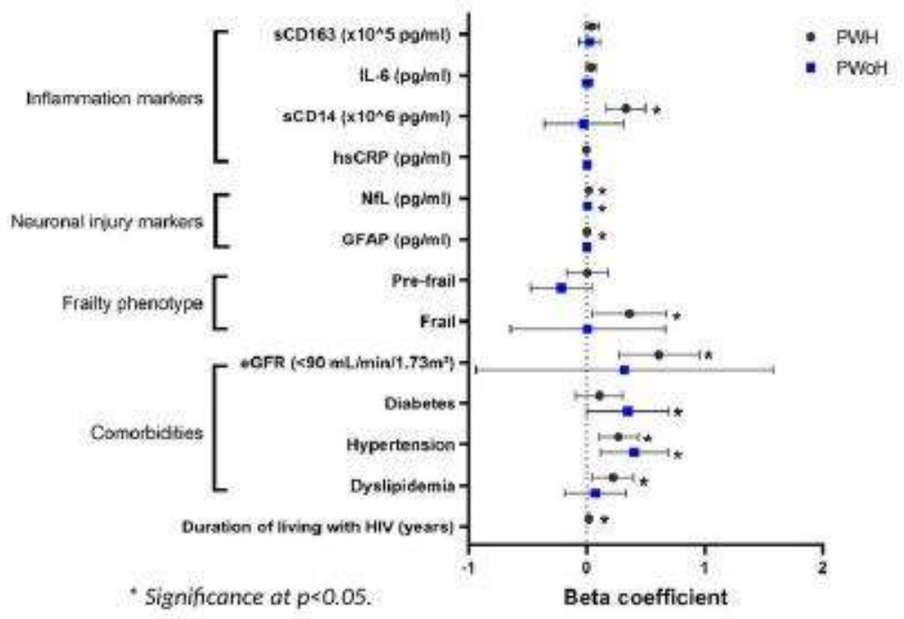
**Significance at p<0.05 when compared between people living with HIV (PWH) and people without HIV (PWoH). Chi-square analysis was used for categorical variables, and the Mann-Whitney U test was used for continuous variables.*
Abbreviations: eGFR, estimated glomerular filtration rate; GFAP, glial fibrillary acidic protein; hsCRP, high-sensitive C-reactive protein; IL-6, interleukin-6; MoCA, Montreal Cognitive Assessment; NfL, neurofilament light chain; sCD163, soluble CD163; sCD14, soluble CD14.

RESULTS & DISCUSSION

(2) pTau-217 increased with age in PWH and was higher than in age-matched PWoH, suggesting greater tau pathology with advancing age in PWH (figure A). Similar age-related increases were observed for NfL and GFAP (figure B and C).
However, cognitive impairment was associated with elevated NfL and GFAP, but not pTau-217, implicating axonal injury and neuroinflammation more strongly than tau pathology (figure D, E and F).



(3) Factors associated with increased pTau-217 levels among PWH, after adjusted for age, sex, ethnicity, smoking and alcohol consumption are frailty, number of medications, and CVD risks including lower eGFR, dyslipidemia, and hypertension, suggesting that age-related comorbidities contribute to the biological milieu linked to tau pathology.



** Significance at p<0.05.*

CONCLUSION

- Overall, pTau-217 levels were elevated in virally suppressed, middle-aged PWH and exhibited broader associations with systemic IA markers, neuronal and astrocytes health markers, as well as multiple CVD risk factors than in PWoH.
- Longitudinal follow-up is required to determine whether elevated pTau-217 predicts subsequent neurocognitive decline or Alzheimer's disease in ageing PWH.

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NAC26 EP106

When Concordant HIV Serology Misleads: False-Positive HIV-1 Results in Active Pulmonary Tuberculosis

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WHEN CONCORDANT HIV SEROLOGY MISLEADS: A DIAGNOSTIC PITFALL OF REPEATED FALSE-POSITIVE HIV-1 RESULTS IN AFB-POSITIVE PULMONARY DISEASE

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INTRODUCTION

• A reactive screening assay with concordant HIV-1 antibody differentiation is generally considered sufficient to establish HIV-1 infection. In contrast, HIV nucleic acid testing is useful for resolving discordant or clinically inconsistent HIV test results[1]. However, false-positive HIV results may still occur despite contemporary diagnostic algorithms, and rare cases with falsely reactive screening and differentiation assays have been reported [2]
• Cross-reacting antibodies to HIV antigens have been reported for several conditions, including Tuberculosis, leprosy, malaria, and rheumatoid arthritis leading to false positive HIV seroreactivity[3].
• We report an unusual case of repeated concordant false-positive HIV-1 serology on two independently collected specimens, subsequently challenged by undetectable HIV RNA and different platform testing, in a patient with AFB-positive pulmonary disease.

CASE REPORT

Clinical & pulmonary findings

• 70-year-old man; 6-month duration of fever, productive cough and constitutional symptoms
• Active smoker; close contact with PTB patient and had history of sexual promiscuity 50 years back
• No transfusion history / autoimmune symptoms
• CXR: right lung consolidation
• HBsAg, anti-HCV, VDRL: non-reactive
• CD4/CD8: within normal ranges
•Sputum and blood c&s: no growth

Mycobacterial work-up

• Two consecutive sputum smears: AFB seen
• Initially managed as pulmonary tuberculosis and community acquired pneumonia (CAP)
• Sputum MTB culture & sensitivity : *Mycobacterium abscessus complex*
• Repeat culture: no growth after 56 days

HIV diagnostic chronology

Date	What initially happened	Result	Why it matters
16/2/26	Specimen 1 HISCL-800 CLIA + Multisure HIV 1/ 2 Confirmatory test	HISCL : Reactive, COI 1.0 Multisure: HIV-1 antibody detected	First result appeared concordant
20/2/26	Specimen 2 HISCL-800 CLIA + Multisure HIV 1/ 2 Confirmatory test	HISCL: Reactive, COI 1.0 Multisure : HIV-1 antibody detected	Independent repeat testing appeared concordant
25/2/26	Pre-ART HIV Viral Load specimen collected	GeneXpert HIV Viral Load: not detected	Unexpected pre-ART HIV RNA "not detected" prompted retrospective alternative-platform serology and repeat HIV Viral Load testing. (Result returned later)
26/2/26	ART initiated	Tenofovir/emtricitabine + efavirenz	Started based on two concordant serological specimens while VL was pending
02/3/26	Retrospective testing using alternative platform	Stored 20/2 specimen: ARCHITECT non-reactive, S/CO 0.2	Showed assay/platform-dependent discordance
06/3/26	Retrospective tertiary HIV RNA	Stored 25/2 specimen: HIV RNA not detected	Supported absence of detectable HIV viraemia
11/3/26	Diagnosis reassessed	ART discontinued	False-positive HIV seroreactivity favoured
13/3/26	New reference-lab specimen	HIV-1/2 not detected	Final follow-up did not support established HIV infection

Specimen date ≠ result review date.

Key trigger: unexpected pre-ART HIV RNA "not detected" prompted retrospective alternative-platform serology and repeat HIV RNA testing.

TREATMENT / MANAGEMENT AND OUTCOME

Anti-mycobacterial / CAP

• T. Akurit-4, 3 tablets OD from 15/2/26 + T. Amoxicillin-clavulanate 625mg TDS
• Sputum smear conversion after ~2 weeks: AFB seen → not seen.
• Anti-TB drug-induced liver injury; bridging therapy to Streptomycin, Ethambutol and Offloxacin.

HIV management

• ART: T.Tenofovir/Emtricitabine 1 tablet ON + T.Efavirenz 600mg ON, commenced 26/2/26 based on repeated concordant serology.
• ART stopped 11/3/26 after reassessment.

Later clinical outcome

• Nosocomial pneumonia with type 1 respiratory failure in the background of AFB-positive pulmonary disease.
• Patient deteriorated and died. No causal link inferred with false HIV result.

DISCUSSION

•This case is unusual because concordant reactive HIV-1 serological testing was reproducible on two independently collected specimens, making ART initiation clinically justified based on the results available at that time[2].
•The turning point was the unexpected pre-ART HIV RNA "not detected" result, prompting further review and repeat testing on alternative HIV platforms[1].
•This case is best viewed as assay-dependent false HIV-1 seroreactivity occurring during AFB-positive pulmonary illness. Although one culture yielded M. abscessus complex, the repeated sputum MTB c&s was negative after 56 days of incubation; therefore, the available evidence was insufficient to establish definite NTM pulmonary disease [5]. Infection-related immune activation and polyclonal B-cell responses may contribute to nonspecific HIV seroreactivity [4], and cross-reacting antibodies to HIV antigens have been described in patients with tuberculosis [3]. However, evidence specifically linking M. abscessus complex to false-positive HIV serology remains limited. Thus, this case suggests an association rather than proven causation.
•Although the initial HIV results were concordant, both HISCL results were only reactive at the cut-off (COI 1.0). This finding became important once the pre-ART HIV RNA result returned as "not detected", prompting further review with alternative-platform serology and repeat HIV RNA testing.

CONCLUSION

This case demonstrates that repeated concordant reactive HIV serological testing, even from independently collected specimens, may rarely represent false positivity. When subsequent findings, particularly a pre-ART HIV RNA "not detected" result, conflict with an apparently established HIV diagnosis, reassessment using alternative-platform serology and repeat molecular testing is essential.

TAKE-HOME: When the laboratory story does not fit, investigate the discordance.

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NAC26 EP114

A Study on Retroviral Disease Patient Who Loss to Follow-Up (LTFU) at the Infectious Disease Clinic (ID), HSNZ

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A STUDY ON RETROVIRAL DISEASE PATIENTS WHO LOSS TO FOLLOW-UP (LTFU) AT THE INFECTIOUS DISEASE CLINIC (ID), HSNZ

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INTRODUCTION

Maintaining long-term retention in care among patients living with HIV on treatment is essential for achieving sustained viral suppression and optimal clinical outcomes.

Loss to follow-up (LTFU) remains a significant challenge. Understanding patients' engagement prior to LTFU, specifically the duration of follow-up and counselling frequency, provides insights into continuity of care and barriers to retention.

OBJECTIVES

1. To evaluate the demographic profile, co-infections, and barriers to retention among RVD patients at HSNZ.
2. To analyse the duration of follow-up from diagnosis prior to loss to follow-up and frequency counselling given.

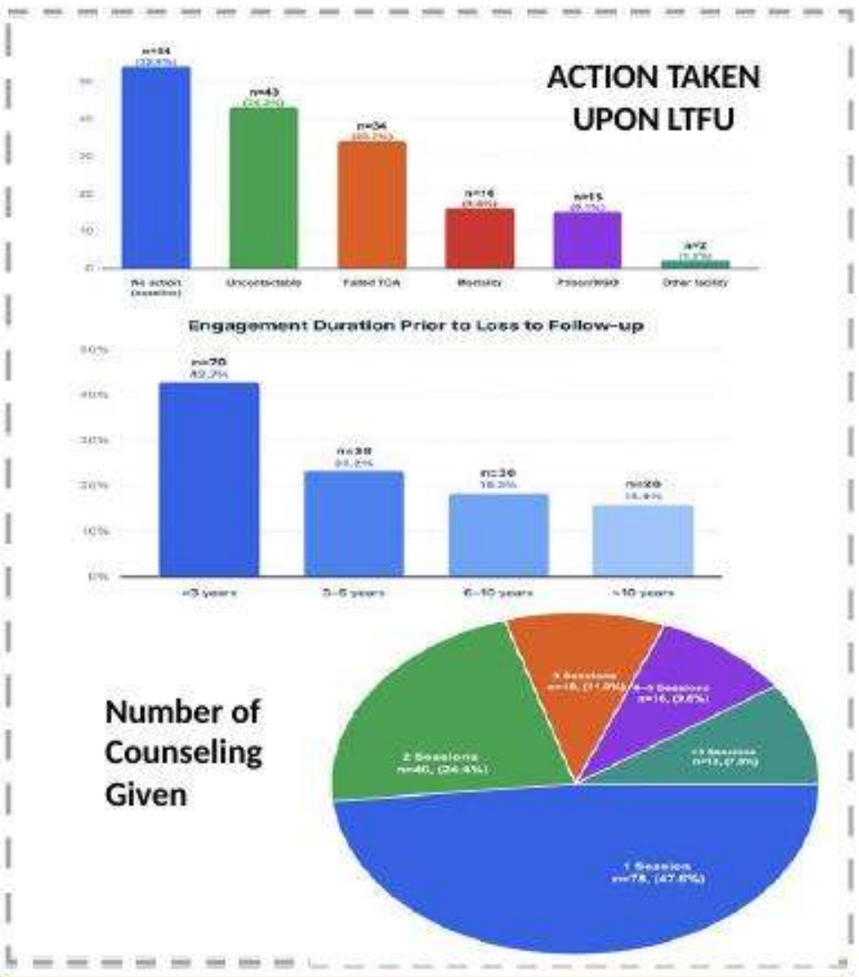
METHODOLOGY

A retrospective descriptive study included all adult Retroviral Disease patients who lost to follow-up at Infectious Disease Clinic, Hospital Sultanah Nur Zahirah (HSNZ) since 2018 until 2025. Data collected included demographics, year of diagnosis, co-infections, final patient outcomes, duration of follow-up prior to LTFU, and frequency of counselling given.

RESULTS

- There were total of 164 patients ; Male 87.8% (n=144) and Female 12.2% (n=20) with mean age 47 years. Majority of the patient were unemployed 55.5% (n=91).
- Hepatitis C was the most common co-infection at 57.3% (n=94), alongside rare Hepatitis B cases 2.2% (n=4) and active opportunistic infections in 17.7% (n=29).
- Transportation logistics (19%, n=31) and active substance addiction (16%, n=27) were the primary identifiable barriers to clinic visits, though over half of defaulted cases (50.6%, n=92) lacked a documented reason.

RESULTS



DISCUSSION

- Majority of patient default occurred within the first 3 years, compared to just 15.9% after 10 years, highlighting the initial 36 months as a critical window requiring targeted retention interventions.
- **Barriers & Social Vulnerabilities:** High rates of HCV co-infection (57.3%) and unemployment (55.5%) compound key defaulted barriers were primarily transportation logistics (19%) and substance use (16%) and though a major documentation gap (>50% unrecorded) masks further root causes.
- **Counseling Drop-Off:** While 82.9% attended up to 3 counseling sessions, sustained engagement was rare (>6 sessions: 7.3%), mirroring early attrition and signaling a need for intensified early-phase psychosocial support.

CONCLUSION

•Continuous and structured counseling is vital to facilitate the early identification of psychosocial and socio-economic barriers that contribute to LTFU.

•Strengthening the availability of dedicated, trained paramedic counselors in HIV clinics is crucial to enhance patient engagement and support long-term retention.

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NAC26 EP115

Persistent Reactive HIV Antibody Following Occupational Exposure: A Diagnostic Challenge

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Persistent Reactive HIV Antibody Following Occupational Exposure: A Diagnostic Challenge

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NMRR ID: NMRR ID-26-03327-SNC

INTRODUCTION

- Occupational needle-stick injuries (NSIs) involving HIV-positive source patients require precise serological monitoring.
- False-positive HIV antibody screenings cause severe psychological distress and diagnostic ambiguity.
- **Objective**: To present a 20-month diagnostic workup of persistent, multi-platform HIV antibody reactivity in an exposed healthcare worker, demonstrating the critical role of CDC-aligned supplemental algorithms and molecular testing in excluding true infection.

CASE REPORT

- **Exposed Individual**: 27-year-old junior healthcare worker; sustained a superficial percutaneous NSI during blood culture collection despite double-gloving.
- **Source Patient Status**: Diagnosed HIV-1 positive on ART; viral load prior to exposure was 40,000 copies/mL.
- **Management**: Immediate wound decontamination; 28-day 3-drug PEP (TDF/FTC + Raltegravir) initiated within 24 hours. The HCW remained asymptomatic.

SEROLOGY & MOLECULAR TESTING

Time Post-Exposure	HIV p24 Ag	HIV Ab (COI)	Supplemental Testing Method	HIV-1 RNA NAT	Clinical Outcome
Baseline & 3 Weeks	Non-Reactive	Non-Reactive	—	—	Baseline non-reactive
6 Weeks	Non-Reactive	Reactive (12.0)	Particle Agglutination: **Positive**	—	Initial discordant finding
6 Weeks (Repeat)	Non-Reactive	Reactive (7.02)	Particle Agglutination: **Positive**	**Not Detected**	Screening/NAT discordance
6 Weeks (Ref Lab - IMR)	Non-Reactive	Non-Reactive	Particle Agglutination: **Positive**	**Not Detected**	Multi-lab evaluation
3 Months	Non-Reactive	Reactive (6.32)	Particle Agglutination: **Indeterminate**	**Not Detected**	Persistent reactivity
~20 Months	Non-Reactive	Reactive (3.24)	Ab Differentiation Assay: **Non-Reactive**	—	Resolution via updated protocol
~20 Months (Ref Lab - IMR)	Non-Reactive	Non-Reactive	Ab Differentiation Assay: **Non-Reactive**	—	Definitive exclusion

Autoimmune Panel: ANA, ENA, c-ANCA, and p-ANCA were all negative.

DISCUSSION

1. **Multi-Platform Consistency Eliminates Technical Artifacts**:
- Persistent HIV-Ab reactivity across three distinct automated immunoassay platforms (local platforms and the Institute for Medical Research reference center) rules out single-analyzer failure, calibration drift, or lot-specific reagent defects.
2. **Endogenous Cross-Reactivity Across Shared Epitopes**:
- Commercial screening assays utilize structurally similar recombinant viral proteins (e.g., gp41, gp120). Unidentified host autoantibodies or cross-reactive immunoglobulins can persistently bind these shared target epitopes across different vendor systems.
3. **Superior Specificity of Modern Differentiation Assays**:
- Transitioning laboratory supplementary protocols from older Particle Agglutination (PA) to the CDC-recommended HIV-1/2 Antibody Differentiation Assay resolved the discordance. PA assays exhibit lower analytical specificity and are prone to non-specific agglutination by host immune factors.
4. **Definitive Resolution via Molecular Testing**:
- Serial non-reactive HIV p24 antigen tests and repeatedly undetectable HIV-1 RNA NAT confirmed a false-positive screening state, as true HIV infection exhibits rapid p24 antigenemia and viral RNA accumulation.

CONCLUSION

- **Biological vs. Technical False Positives**: Cross-platform reactivity reflects persistent host-derived immunological interference rather than equipment failure.
- **Algorithmic Adherence**: Reliance on older supplementary methods (like Particle Agglutination) risks prolonging false-positive misclassifications. Adopting CDC-recommended HIV-1/2 antibody differentiation assays combined with nucleic acid testing (NAT) provides definitive resolution in complex NSI investigations.

ACKNOWLEDGEMENT
The authors would like to thank all staff of Microbiology Unit, Pathology Department, Hospital Ampang, Clinical Research Centre Hospital Ampang (CRC) and Institute Medical Research (IMR) for their support and contribution.

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NAC26 EP116

Prevalence of drug resistance mutations and HIV-1 subtypes among HIV-1 patients with virological failure in Selangor.

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KEMENTERIAN KESIHATAN MALAYSIA
HOSPITAL SUNGAI BULOH

PREVALENCE OF DRUG RESISTANCE MUTATIONS AND HIV-1 SUBTYPES AMONG HIV-1 PATIENTS WITH VIROLOGICAL FAILURE IN SELANGOR

JABATAN PATOLOGI

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INTRODUCTION

The emergence of HIV-1 drug resistance mutations (DRMs), together with the considerable genetic diversity of viral subtypes, presents major challenges to the effectiveness of antiretroviral therapy (ART). Characterizing the local distribution of HIV-1 subtypes and resistance profiles is essential for optimizing treatment strategies and improving clinical outcomes among patients.

OBJECTIVES

To characterize the distribution of HIV-1 subtypes and determine the prevalence and patterns of major drug resistance mutations among patients receiving ART who experienced virological failure in Selangor, Malaysia.

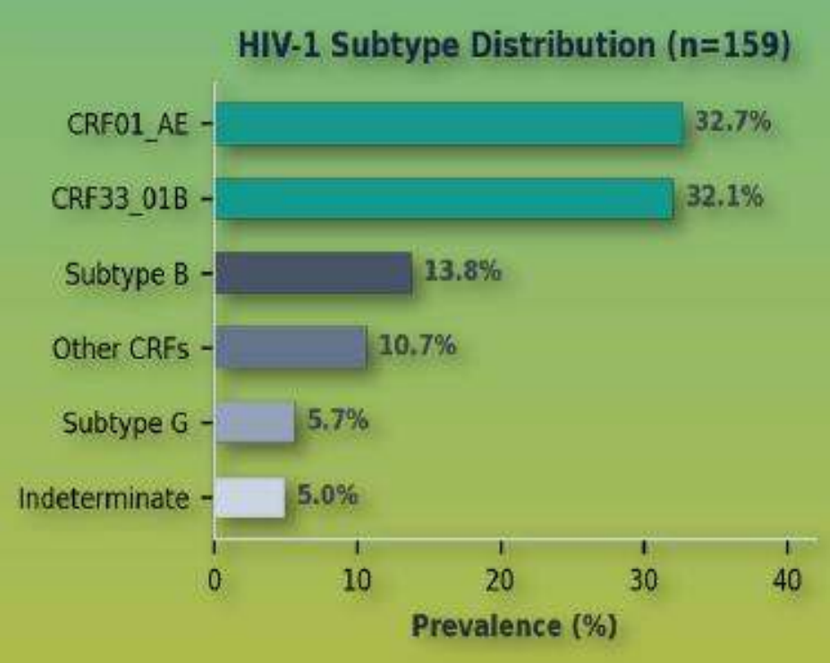
METHODOLOGY

Plasma samples were collected between March 2025 and June 2026 in EDTA tubes from 159 HIV-1-infected patients receiving treatment, each with a viral load of ≥ 1000 copies/ml. Viral subtyping and mutation detection were performed using the Vela Diagnostics Next-Generation Sequencing (NGS) System with the Sentosa SQ HIV-1 Genotyping Assay.

RESULTS

RESULTS: HIV-1 SUBTYPES

Successful subtyping was achieved in 95.0% of the samples (151/159), while 5.0% (8/159) were indeterminate.



RESULTS: DRUG RESISTANCE

Overall Resistance Profile (n=159)



Single-class Major DRMs	23.3% (37/159)
Multi-class Major DRMs	54.7% (87/159)
NRTI Major DRMs	62.3% (99/159)
NNRTI Major DRMs	68.6% (109/159)
PI Major DRMs	0.6% (1/159)
INSTI Major DRMs	2.0% (3/159)
Frequent NRTI mutations	M184V, K65R, S68G, M184I
Frequent NNRTI mutations	K103N, P225H, Y188L, G190A, L100I, V106I
PI major mutation	I50L
INSTI major mutations	G118R , E138A

DISCUSSION

The predominance of CRF01_AE and CRF33_01B is consistent with the circulating recombinant forms previously reported in the region. The high prevalence of multiclass major resistance mutations, particularly those affecting the NRTI and NNRTI classes, is comparable to findings from earlier studies. The low frequency of PI and INSTI associated mutations suggests that these classes remain largely effective as first or second line treatment options for patients receiving ART. This study was limited by its reliance on laboratory data without accompanying clinical histories or treatment information. Inclusion of patients' antiretroviral regimens would strengthen future investigations.

CONCLUSION

In summary, this study describes the distribution of HIV-1 subtypes and the overall patterns of major HIV-1 drug resistance mutations among patients receiving treatment who experienced virological failure in Selangor. These findings underscore the importance of genotypic resistance testing for monitoring patients receiving HIV-1 antiretroviral therapy. Expanded epidemiological surveillance throughout Malaysia may aid in developing clinical guidelines and support the refinement of national public health policies.

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NAC26 EP118

A Retrospective Analysis of the Causes of Hospitalizations among People Living with HIV (PLHIV) at Hospital Sungai Buloh

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A Retrospective Analysis of the Causes of Hospitalizations among People Living with HIV (PLHIV) at Hospital Sungai Buloh

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INTRODUCTION

As survival on antiretroviral therapy (ART) improves, morbidity among people living with HIV (PLHIV) is shifting toward non-AIDS-defining events. We characterized admission diagnoses and outcomes at Hospital Sungai Buloh, a Malaysian tertiary referral hospital, to assess whether AIDS-defining events (ADEs) remain an important cause of hospitalization.

OBJECTIVES

Primary: Determine the leading reasons for hospitalization among adults living with HIV at Hospital Sungai Buloh.

Secondary: To assess the correlation between primary admissions and patient immunological/virological status (CD4 count, HIV viral load, and ART status), and to evaluate clinical outcomes at discharge.

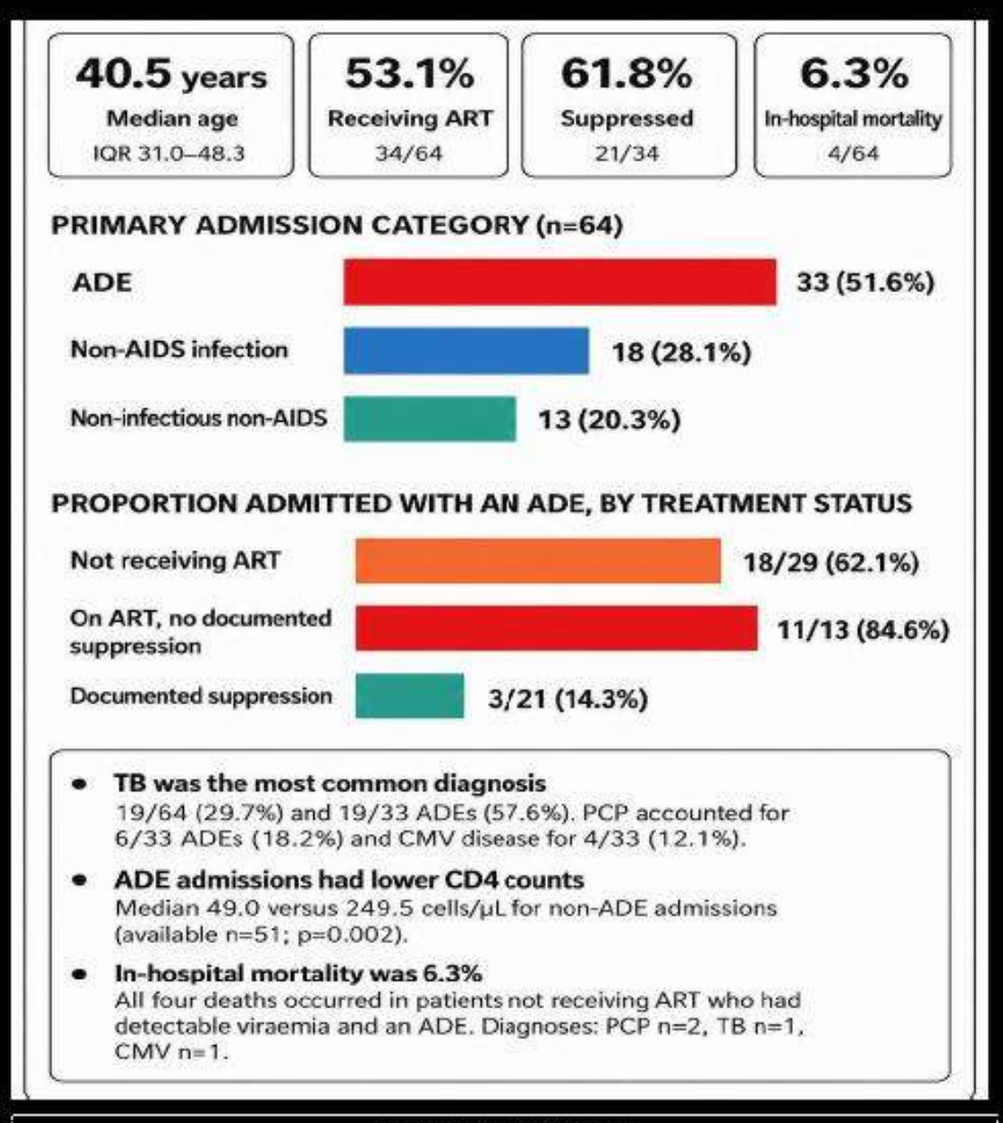
METHODOLOGY

Design and population: Retrospective observational study of adults (≥18 years) with documented HIV admitted to Hospital Sungai Buloh from 1 January–31 March 2026. For repeat admissions, only the earliest admission was analyzed.

Classification: Primary diagnoses were categorized as AIDS-defining events (ADEs), non-AIDS infections, or non-infectious non-AIDS events.

Variables and analysis: ART status, HIV RNA, CD4 count and discharge outcome were extracted from clinical records. Viral suppression was defined as HIV RNA <200 copies/mL. Data were reported as n (%) or median (IQR). CD4 counts in ADE versus non-ADE admissions were compared using the Mann–Whitney U test; $p<0.05$.

RESULTS



DISCUSSION

ADEs remained the leading admission category (51.6%). TB caused 29.7% of admissions, exceeding the global pooled estimate of 19% (1).
ADE admissions had lower CD4 counts and occurred mainly among patients not receiving ART or without documented viral suppression, consistent with other Asian cohorts (2,3).
Mortality was lower than the global estimate (6.3% versus 17%). This may reflect specialized HIV care and timely treatment. However, the small sample and lack of post-discharge outcomes may underestimate mortality.

CONCLUSION

Despite the epidemiological shift toward non-AIDS-defining morbidity in the ART era, ADEs—particularly tuberculosis—remained the leading reason for hospitalisation in this Malaysian tertiary referral cohort. Earlier diagnosis, ART initiation, retention in care, viral suppression, and opportunistic infection prevention remain priorities.

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NAC26 EP119

Silent Signals: ENT Symptoms as the Sentinel Presentation of Undiagnosed HIV Infection: A Case Series (2020–2025)

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All contents | Track A list | Track B list | Track C list

Silent Signals: ENT Symptoms as the Sentinel Presentation of Undiagnosed HIV Infection: A Case Series (2020–2025)

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INTRODUCTION

- Human Immunodeficiency Virus (HIV) infection remains a significant public health concern in Malaysia.
- Despite declining new infections, 68% of new HIV diagnosis were diagnosed at a late stage (Bin Ahmad et al., 2024).
- Otorhinolaryngologic (ENT) manifestations frequently points to underlying HIV infection, up to 80% of untreated or advanced patients and preceding formal diagnosis (Prasad et al., 2006).
- As findings mimic common head and neck infection or malignancy, **diagnostic delay is common**, and therefore a **high index of suspicion at the ENT clinic** is essential for timely detection.
- This case series accounts a case series from a single tertiary ENT department.

OBJECTIVES

- To describe the spectrum of ENT presentations that led to incidental diagnosis of HIV infection. .
- To evaluate clinical outcomes following diagnosis, including treatment response and disease trajectory.
- To highlight red-flag ENT features that prompt HIV screening.

METHODOLOGY

- Design: Retrospective case series from ENT Department, Hospital Canselor Tuanku Muhriz (HCTM), Universiti Kebangsaan Malaysia.
- Study Period: 2020–2025.
- Population: Patients who presented to the ENT clinic or ward with a primary ENT complaint, and subsequent workup revealed a new diagnosis of HIV infection.

RESULTS

Total cases – Seven (7) patients, all identified and presenting as male
Age – Range 30-55 years old, Median age: 34 years, Mode: 31 years

RISK FACTORS

6 out of 7
Men who have sex with men

1 out of 7
non medical intravenous drug user

1 out of 7
multiple sexual partners

PRESENTING SYMPTOM



- 3 patients presented **unilateral neck mass**
- Diagnosed Tuberculosis (TB) Lymphadenitis
- Using TB-GENE XPERT fine needle aspiration

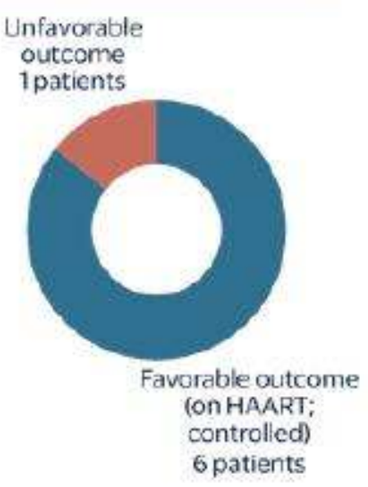


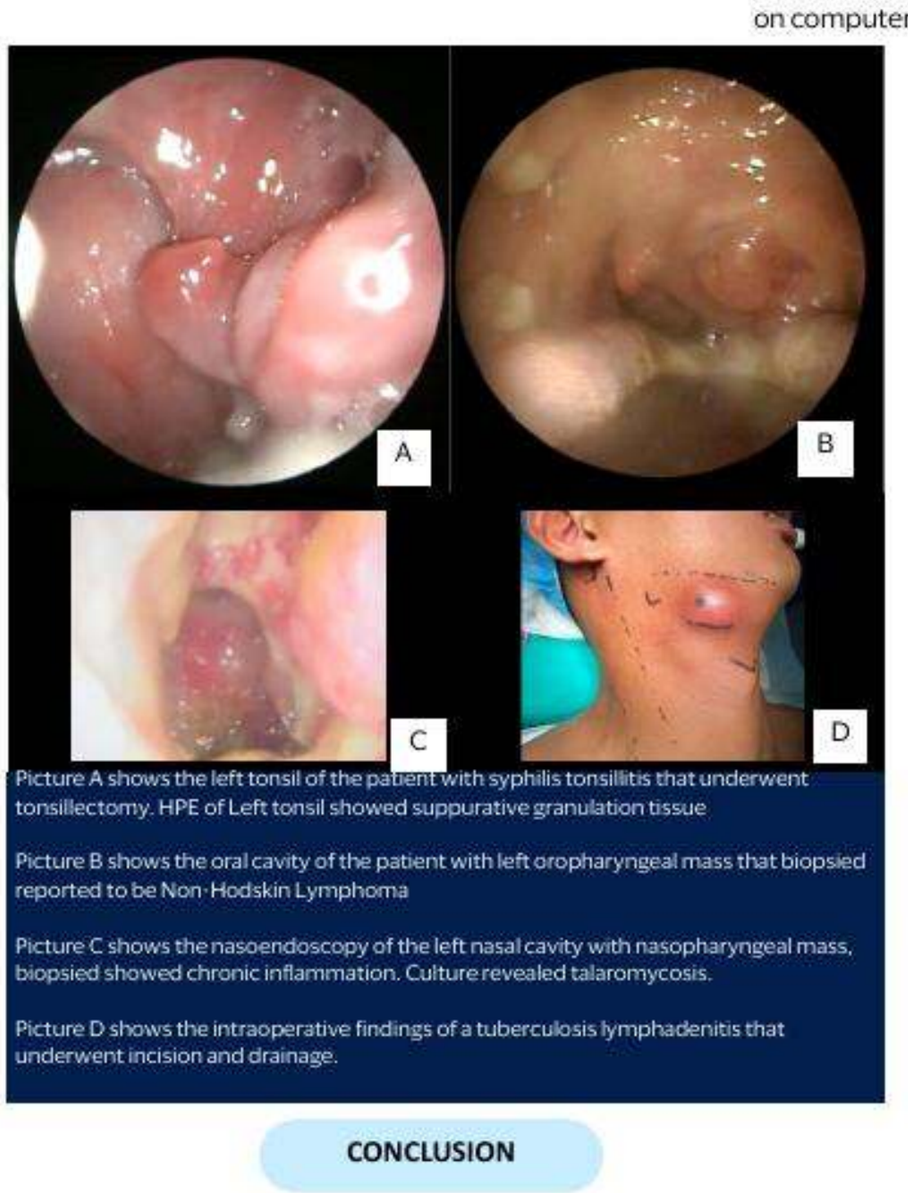
- 1 patients presented **persistent nasal block with recurrent epistaxis.** Endoscope - nasopharyngeal mass
- 1 diagnosed with nasal talaromycosis



- 3 patients presented **persistent change in voice - oral fullness/ hoarseness**
- 1 patient had oropharyngeal mass, biopsied reported as lymphoma
- 1 diagnosed with syphilis tonsillitis
- 1 diagnosed with acute unilateral vocal cord palsy from skull-base osteomyelitis confirmed on computer topography of skull base

OUTCOME





Picture A shows the left tonsil of the patient with syphilis tonsillitis that underwent tonsillectomy. HPE of Left tonsil showed suppurative granulation tissue

Picture B shows the oral cavity of the patient with left oropharyngeal mass that biopsied reported to be Non-Hodskin Lymphoma

Picture C shows the nasoendoscopy of the left nasal cavity with nasopharyngeal mass, biopsied showed chronic inflammation. Culture revealed talaromycosis.

Picture D shows the intraoperative findings of a tuberculosis lymphadenitis that underwent incision and drainage.

DISCUSSION

- **Common presentations in ENT for HIV** (Prasad et al., 2006; Morales et al., 2022)
  - Cervical **lymphadenopathy**
  - Oropharyngeal **candidiasis**,
  - Chronic **tonsillitis**,
  - Recurrent acute **rhinosinusitis** or chronic rhino sinusitis
  - Recurrent acute **otitis media** or chronic suppurative otitis media
  - Multiple **cranial nerve** palsies, with facial nerve palsy

- **Tuberculous lymphadenitis** was the dominant presentation in this cohort (3/7); most common cause of cervical lymphadenopathy among HIV-positive patients — accounting for 31–42% of cases across multiple settings versus 11–13% in HIV-negative patients (Sun et al., 2020)

- **Malignancy-presenting case** (lymphoma) progressed rapidly despite treatment, highlighting that the underlying pathology determines prognosis. Biopsy is essential for lesions of uncertain etiology.

- Three of seven patients presented with an **AIDS-defining illness** at diagnosis: disseminated **talaromycosis**, miliary **tuberculosis**, and **lymphoma**. Talaromycosis is a recognized AIDS-defining illness endemic to Southeast Asia and a leading cause of HIV-associated death in the region (Thompson et al., 2021)

CONCLUSION

- **Low threshold for HIV screening in patients with unexplained cervical lymphadenopathy, nasopharyngeal masses, treatment-refractory tonsillitis, or unexplained cranial neuropathy** — particularly when histopathology is inconclusive or the clinical course deviates from expected treatment response.
- Early recognition enables timely HAART initiation.

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NAC26 EP122

Undetectable Yet Not Unprotected: Disseminated Tuberculosis in a Virologically Suppressed Patient with HIV

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Abstract ID: NAC26EP122

KEMENTERIAN KESIHATAN MALAYSIA

UNDETECTABLE YET NOT UNPROTECTED; DISSEMINATED TUBERCULOSIS IN A VIROLOGICALLY SUPPRESSED PATIENT WITH HIV



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INTRODUCTION

- Tuberculosis (TB) is the most common opportunistic infection in people living with HIV and the most common cause of morbidity and mortality in this population.[1] Low CD4 counts in PLHIV impairs cellular immunity and increases the risk of *Mycobacterium tuberculosis* infection.[2]
- Although effective ART, an undetectable viral load and preserved CD4 count substantially reduce the risk of TB, they do not provide complete protection. Disseminated TB is usually associated with advanced immunosuppression but can rarely occur despite good immune recovery and treatment adherence.
- This case highlights disseminated, drug-sensitive TB in a PLHIV with an undetectable viral load and CD4 >200 cells/µL, demonstrating the diagnostic challenge of TB in an apparently well-controlled HIV infection.
- It also emphasises the importance of maintaining a high index of suspicion and screening PLHIV using TB symptoms and chest X-ray (CXR) in primary care, particularly in high-risk individuals, to facilitate early detection and treatment.

CASE REPORT



DISCUSSION

- **TB in PLHIV despite good HIV control**

Tuberculosis remains an important opportunistic infection in people living with HIV (PLHIV). Although effective ART, viral suppression and a high CD4 count reduce the risk of TB, they do not provide complete protection.[3,4] This case highlights disseminated, drug-sensitive TB despite good ART adherence, an undetectable viral load and preserved CD4 count.

- **Atypical presentation**

Diagnosis was challenging due to the absence of classical TB symptoms. The patient presented mainly with marked weight loss, diarrhoea, lethargy and early satiety, initially raising suspicion of colorectal malignancy. Further investigations confirmed, sputum AFB positive, culture-confirmed drug-sensitive *Mycobacterium tuberculosis*, and intestinal TB on histopathology, consistent with disseminated TB.

- **Primary care learning point of view**

A high index of suspicion for TB should be maintained in PLHIV, regardless of viral suppression or CD4 count. Unexplained weight loss and constitutional or gastrointestinal symptoms should prompt consideration of TB alongside malignancy and other differentials.

In primary care, simple, non-invasive screening with TB symptoms (cough, fever, night sweats and weight loss) and chest X-ray can facilitate early detection, particularly among high-risk groups.[1]

CONCLUSION

This case highlights that TB remains a diagnostic possibility in PLHIV despite effective ART, viral suppression and preserved CD4 count. Atypical presentations, particularly unexplained weight loss and gastrointestinal symptoms without classical respiratory features, can delay diagnosis. Maintaining a high index of suspicion and incorporating symptom assessment and chest X-ray screening in high-risk individuals are essential for early detection. Primary care plays a key role in timely recognition, referral and continuity of TB-HIV care.

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Stigma Effect on Loss-to-follow-up among People Living with Human Immunodeficiency Virus: A Pilot Study

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5TH NATIONAL AIDS CONFERENCE 2026
NAC26 EP124
TRACK A · CLINICAL

Stigma Effect on Loss-to-follow-up among People Living with Human Immunodeficiency Virus: A Pilot Study

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Hospital Tengku Ampuan Rahimah Klang

50
PLHIV enrolled

22%
lost to follow-up

OR 0.953
stigma vs LTFU, p=0.017

INTRODUCTION

Retention in HIV care is essential for achieving viral suppression and reducing HIV-related morbidity and mortality. However, loss to follow-up (LTFU) remains a challenge among people living with HIV (PLHIV) and may result in treatment interruption and poor clinical outcomes. HIV-related stigma may negatively influence healthcare-seeking behaviour, treatment adherence, and engagement with HIV care, potentially contributing to LTFU. However, evidence on the association between HIV-related stigma and LTFU among PLHIV in Malaysia remains limited.

OBJECTIVE

To determine the association between HIV-related stigma and LTFU among PLHIV receiving care at Hospital Tengku Ampuan Rahimah (HTAR), Selangor.

METHODS

A cross-sectional observational study was conducted among PLHIV receiving care at HTAR from February to July 2026. Participants were recruited using simple random sampling. HIV-related stigma was assessed using the validated Berger HIV Stigma Scale. Sociodemographic and clinical characteristics, including relevant laboratory parameters and LTFU status, were obtained from patient records. The association between stigma score and LTFU was assessed using logistic regression analysis.

RESULTS

A total of 50 PLHIV aged 18–65 years were included, of whom 42 (84.0%) were male and 8 (16.0%) were female. Of the 50 participants, 11 (22%) experienced LTFU. HIV-related stigma score was significantly associated with LTFU (OR 0.953, 95% CI 0.915–0.992; p=0.017). Each one-unit increase in stigma score was associated with a 4.7% reduction in the odds of LTFU.

CONCLUSION

HIV-related stigma score was significantly associated with LTFU among PLHIV receiving care at HTAR. The inverse association observed warrants further investigation to understand the behavioural, social, and healthcare-related factors influencing retention in HIV care. Further studies with larger sample sizes are needed to clarify the relationship between HIV-related stigma and LTFU among PLHIV in Malaysia.

NAC26 EP126

Fanconi Syndrome in the Setting of Augmented Renal Clearance: Reversible Tenofovir Disoproxil Fumarate-Induced Proximal Tubulopathy in a Young Adult with HIV-Tuberculosis Co-Infection

Nur Hidayah Zakaria
Wan Nor Aina Ar-Mardiyah Wan Jeffery, Atifah Isamail
Hospital Tanah Merah

All contents | Track A list | Track B list | Track C list

Fanconi Syndrome in the Setting of Augmented Renal Clearance: Reversible Tenofovir Disoproxil Fumarate-Induced Proximal Tubulopathy in a Young Adult with HIV-Tuberculosis Co-Infection

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INTRODUCTION

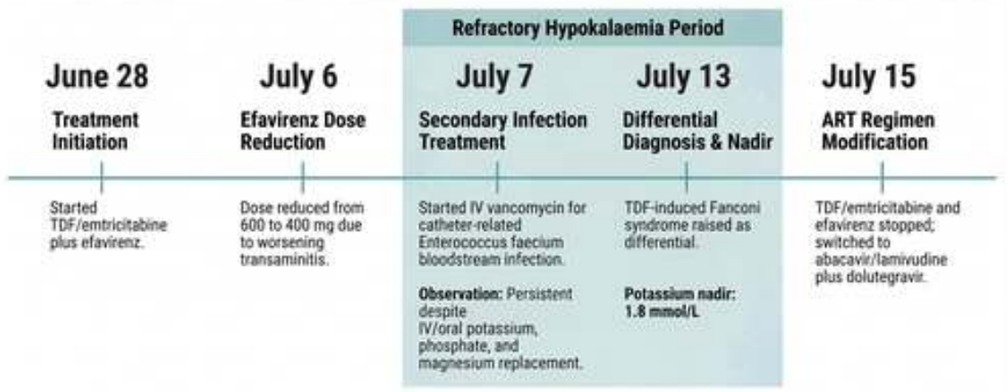
Augmented renal clearance (ARC), defined as creatinine clearance >130 mL/min/1.73m², is increasingly recognised in critical illness and associated with subtherapeutic antimicrobial exposure. Tenofovir disoproxil fumarate (TDF) causes proximal tubular toxicity and Fanconi syndrome. However, sustained ARC coexisting with TDF-induced proximal tubulopathy is under-described.

CASE REPORT

History, Examination & Diagnosis: *A 22-year-old Malay man with type 2 diabetes was admitted with severe sepsis (7-day ICU stay, 3 days intubated). Active problems: newly diagnosed HIV (CD4 9 cells/µL), disseminated tuberculosis (TB) (pulmonary + gut/ileitis), carbapenem-resistant Acinetobacter baumannii bacteraemia with necrotising pneumonia, and drug-induced liver injury from anti-TB therapy. Antiretroviral therapy (ART) was deferred until hepatic/GI status allowed; on 28 June, TDF/emtricitabine plus efavirenz were started with potassium monitoring. Baseline renal profiling already showed a low serum creatinine with high creatinine clearance (130-160 mL/min), in keeping with augmented renal clearance from young age and sepsis, as shown in the trend chart.*



Management: *Refractory hypokalaemia (K^+ 3.8→1.8 mmol/L) with sustained ARC (CrCl 130–227 mL/min) despite aggressive replacement prompted TDF-induced Fanconi syndrome as the differential; TDF/emtricitabine and efavirenz were stopped on 15 July and switched to abacavir/lamivudine + dolutegravir, removing both nephrotoxic and hepatotoxic agents in one step.*



Outcome: *Following cessation of TDF/emtricitabine and efavirenz, potassium and phosphate levels trended toward recovery, while creatinine clearance declined from its peak of 227 mL/min toward the augmented renal clearance threshold, reaching 132.5 mL/min by 20 July as TDF washout continued. Liver enzymes also improved following discontinuation of efavirenz. This trajectory was consistent with reversible TDF induced proximal tubulopathy. Twice weekly monitoring of renal function and bone mineral parameters, together with urinalysis and HLA B*5701 confirmation around abacavir initiation, was recommended. Continued investigation of an unrelated persistent septic focus was also advised.*

DISCUSSION

TDF nephrotoxicity is mediated by renal transporters. Tenofovir is taken up into proximal tubule cells via organic anion transporters (OAT1/3), and the augmented glomerular filtration and renal blood flow associated with ARC may increase filtered tenofovir delivery to the tubule. This could plausibly amplify, rather than protect against, transporter mediated accumulation and mitochondrial injury. However, this remains a hypothesis generating correlation rather than a proven mechanism. Diabetes and HIV TB co infection are also independently recognised risk factors for TDF nephrotoxicity in this patient. Diagnostically, ARC itself increases solute turnover, while concurrent diarrhoea, SIADH, and dependence on parenteral nutrition obscured the early hypokalaemia signal. This delayed recognition of the Fanconi differential by several days despite a critical potassium nadir of 1.8 mmol/L. Supra normal renal function should therefore prompt closer, rather than less vigilant, electrolyte surveillance whenever TDF is used.

CONCLUSION

Supra-normal renal function should not be equated with low nephrotoxicity risk for transporter-handled drugs such as TDF. In patients with sustained augmented renal clearance receiving TDF, unexplained or refractory hypokalaemia, hypophosphataemia or hypomagnesaemia should prompt early consideration of Fanconi syndrome and proactive electrolyte surveillance from the point of treatment initiation.

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NAC26 EP002

Tahap stigma dan diskriminasi terhadap orang yang hidup dengan HIV dalam kalangan anggota kesihatan di fasiliti kesihatan awam

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TAHAP STIGMA DAN DISKRIMINASI TERHADAP ORANG YANG HIDUP DENGAN HIV (PLHIV) DALAM KALANGAN ANGGOTA KESIHATAN DI FASILITI KESIHATAN AWAM

Abstract ID: NAC26EP002 | Track B – Public Health | Kajian Keratan Rentas | n = 220 responden
Mohd Zahari Bin Mohd Aini [1] • Faridah Binti Hassan [1] • Muhd Nur Bin Sofhan Safian [2]
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PENGENALAN

Stigma dan diskriminasi berkaitan HIV dalam fasiliti kesihatan boleh mempengaruhi cara perkhidmatan diberikan, tahap keselesaan PLHIV untuk mendapatkan rawatan, serta kepercayaan terhadap sistem kesihatan. Walaupun anggota kesihatan memahami prinsip pencegahan jangkitan, kebimbangan terhadap pendedahan HIV, kekurangan latihan khusus, dan persepsi terhadap kumpulan populasi tertentu berpotensi menghasilkan amalan berlebihan atau layanan yang tidak konsisten.

Kajian ini menilai pengalaman, kebimbangan, latihan, amalan dan pemerhatian terhadap stigma bagi mengenal pasti ruang penambahbaikan ke arah penjagaan yang selamat, berkesan, berpusatkan pesakit, saksama dan berasaskan hak.

OBJEKTIF KAJIAN

Ke Arah Perkhidmatan HIV yang Lebih Baik

01 **Mengukur pengalaman** anggota kesihatan dalam memberikan perkhidmatan kepada PLHIV.

02 **Mengenal pasti pendedahan** kepada latihan berkaitan HIV, komunikasi, hak asasi dan pengurangan stigma.

03 **Menilai situasi** yang menimbulkan kebimbangan terhadap risiko jangkitan HIV serta amalan perlindungan diri.

04 **Mengenal pasti bentuk stigma atau diskriminasi** yang pernah diperhatikan di fasiliti kesihatan.

05 **Mencadangkan Model of Good Care** dan kitaran **PDSA** sebagai kerangka penambahbaikan berterusan.

METHODOLOGY KAEDAH KAJIAN

Evidence for Better Care

REKA BENTUK KAJIAN (STUDY DESIGN): **Kajian deskriptif kuantitatif** dijalankan untuk menilai pengetahuan, persepsi dan amalan anggota kesihatan berkaitan HIV, stigma dan diskriminasi serta penyampaian penjagaan kepada PLHIV.

SAMPEL KAJIAN (SAMPLE): **220** anggota kesihatan (n = 220). **Tempoh Sampel Kajian:** Dilaksanakan berkala setiap **8 bulan** bermula **Mac 2024** sehingga **Mac 2026.**

INSTRUMEN KAJIAN (INSTRUMENT): Data dikumpulkan menggunakan **soal selidik berstruktur.**

KOMPONEN SOAL SELIDIK (QUESTIONNAIRE COMPONENTS):
- Pengetahuan berkaitan HIV
- Persepsi terhadap risiko jangkitan HIV
- Stigma dan diskriminasi terhadap PLHIV dan populasi berisiko utama
- Amalan penjagaan dan pencegahan jangkitan
- Persetujuan (consent)
- Privasi dan kerahsiaan pesakit

ANALISIS DATA (DATA ANALYSIS): Data dianalisis secara deskriptif menggunakan **kekerapan** (n) **dan peratusan** (%).

HASIL UTAMA (n = 220)

SKOR ABNA MENGIKUT DOMAIN DAN TEMPOH INTERVENSI

Trend penurunan skor daripada garis dasar hingga 24 bulan menunjukkan impak positif intervensi terhadap pengurangan ketakutan, stigma, sikap negatif dan faktor institusi berkaitan HIV.

Masyarakat yang lebih inklusif, maklumat yang tepat, kesihatan yang lebih baik.

Apakah ABNA? ABNA *(Achievable Benefit Not Achieved)* ialah alat penilaian yang mengukur jurang antara keadaan semasa dan sasaran yang sepatutnya dicapai dalam aspek pengetahuan, sikap, amalan dan faktor persekitaran berkaitan HIV. Skor yang lebih rendah menunjukkan jurang yang lebih kecil, menandakan pencapaian intervensi yang lebih baik dalam meningkatkan kesihatan awam.

Ketakutan terhadap jangkitan HIV
Tahap ketakutan individu terhadap risiko jangkitan HIV dalam masyarakat.

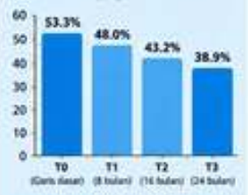

Penurunan **11.4** mata peratus

Stigma dan diskriminasi
Tahap stigma dan diskriminasi terhadap individu berkaitan HIV dalam masyarakat.


Penurunan **7.8** mata peratus

Sikap terhadap individu yang hidup dengan HIV (PLHIV)
Tahap sikap masyarakat terhadap individu yang hidup dengan HIV (PLHIV).


Penurunan **12.2** mata peratus

Sikap terhadap populasi kunci
Tahap sikap masyarakat terhadap populasi kunci yang lebih berisiko terjangkit HIV.


Penurunan **14.4** mata peratus

Faktor institusi/ fasiliti kesihatan
Faktor berkaitan perkhidmatan kesihatan dan persekitaran institusi yang mempengaruhi respons terhadap HIV.


Penurunan **6.1** mata peratus

RUMUSAN UTAMA

Penurunan terbesar **14.4** mata peratus — *Sikap terhadap populasi kunci*
Diikuti oleh **12.2** mata peratus — *Sikap terhadap PLHIV*
Seterusnya **11.4** mata peratus — *Ketakutan terhadap jangkitan HIV*
Penurunan sederhana **7.8** mata peratus — *Stigma dan diskriminasi*
Penurunan terkecil **6.1** mata peratus — *Faktor institusi/ fasiliti kesihatan*

Intervensi yang berterusan dan menyeluruh dapat mengurangkan jurang berkaitan HIV, seterusnya menyokong masyarakat yang lebih sihat, adil dan inklusif.

IMPLIKASI & JURANG DAPATAN UTAMA

Kenal Pasti Jurang, Tingkatkan Kualiti Penjagaan

76% sentiasa memakai **sarung tangan.** **18%** responden melaporkan mengelakkan sentuhan fizikal. — Amalan perlindungan diri masih perlu diperkukuh bagi situasi berisiko rendah.

92% menganggap **ujian** HIV tanpa pengetahuan pesakit **tidak** boleh diterima. — Kesedaran terhadap hak pesakit adalah tinggi.

85% bersetuju bahawa **diskriminasi** boleh menimbulkan masalah di tempat kerja. — Stigma di tempat kerja masih wujud dan perlu ditangani secara menyeluruh.

78% menyatakan terdapat prosedur/protokol untuk mengurangkan risiko jangkitan. — Prosedur wujud namun pelaksanaan dan pematuhan perlu terus dipantau.

67% melaporkan kewujudan garis panduan bertulis berkaitan anti-diskriminasi. — Masih terdapat jurang dalam kewujudan dasar dan garis panduan anti-diskriminasi.

IMPLIKASI PENAMBAHBAIKAN

Intervensi perlu bergerak daripada latihan pengetahuan semata-mata kepada **pengukuhan kompetensi, komunikasi tanpa stigma, pematuhan hak pesakit** dan **audit pengalaman penjagaan.**

Bersama ke arah Penjagaan HIV yang Lebih Baik

PERBINCANGAN DISCUSSION

Bersama ke arah Penjagaan HIV yang Lebih Baik

01 Hasil menunjukkan bahawa **pengalaman klinikal dengan PLHIV adalah agak tinggi,** namun latihan tidak seimbang antara aspek teknikal dan aspek hak pesakit.

02 **Kebimbangan terhadap darah dan luka adalah lebih ketara berbanding sentuhan biasa,** tetapi kewujudan kebimbangan terhadap aktiviti berisiko rendah menunjukkan masih terdapat ruang untuk memperkukuh kefahaman mengenai laluan penularan HIV dan penggunaan langkah berjaga-jaga standard.

03 **Pemerhatian terhadap percakapan negatif, penjagaan kurang berkualiti dan keengganan memberikan penjagaan** pula menunjukkan bahawa stigma bukan sekadar isu pengetahuan, tetapi berkait dengan budaya kerja, komunikasi, persepsi risiko dan kefahaman tentang hak serta maruah pesakit.

04 Secara keseluruhannya, dapatan kajian menegaskan bahawa penambahbaikan berterusan melalui latihan yang lebih komprehensif, pengukuhan komunikasi, serta pendekatan berasaskan hak pesakit adalah penting untuk mengurangkan stigma dan meningkatkan kualiti penjagaan kepada PLHIV di fasiliti kesihatan.

> "**Stigma boleh diubah. Penjagaan yang berkualiti bermula dengan pengetahuan, komunikasi yang baik dan menghormati hak setiap pesakit.**"

MODEL OF GOOD CARE KERANGKA PENAMBAHBAIKAN

Penjagaan Lebih Baik untuk PLHIV, Bersama Kita Boleh



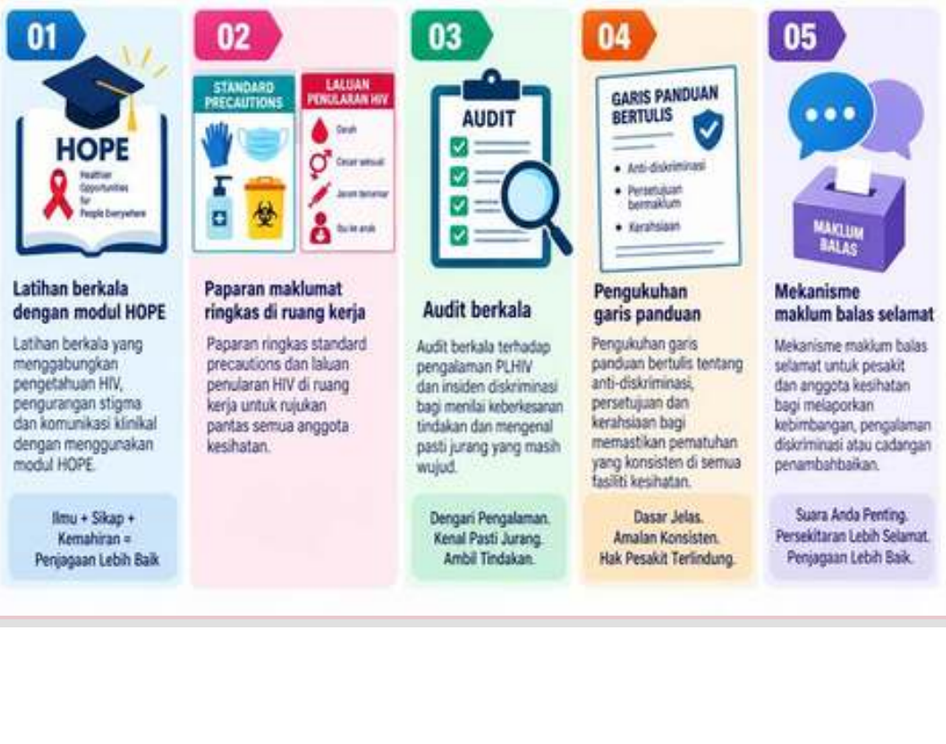
PDSA CYCLE Kitaran Penambahbaikan Berterusan

Langkah Kecil Perubahan Besar Penjagaan Lebih Baik



INTERVENSI STRATEGI KE ARAH PENJAGAAN HIV YANG LEBIH BAIK

Ilmu + Empati + Tindakan Penjagaan Tanpa Stigma



KESIMPULAN

Majoriti responden mempunyai pengalaman memberikan perkhidmatan kepada PLHIV, namun masih terdapat jurang antara latihan pencegahan jangkitan dengan latihan berkaitan hak asasi dan pengurangan stigma. Kebimbangan terhadap situasi klinikal berisiko tinggi lebih menonjol, manakala sebahagian kecil masih menunjukkan tingkah laku mengelakkan sentuhan dan penggunaan perlindungan berlebihan. Percakapan negatif, penjagaan kurang berkualiti dan keengganan memberikan penjagaan menunjukkan keperluan pendekatan organisasi yang sistematik. **Model of Good Care bersama PDSA** membantu menterjemahkan dapatan kepada intervensi yang boleh diukur, dipantau dan ditambah baik secara berterusan, dengan hasil menunjukkan **penambahbaikan yang memberangsangkan dan efisien**.

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PENGHARGAAN:

PRISMA
SABAH AIDS SUPPORT KASIH SERVICES ASSOCIATION

NAC26 EP005

A Cross-Sectional Survey of HIV Prevention Awareness in Northern Malaysia

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A Cross-Sectional Survey of HIV Prevention Awareness in Northern Malaysia

Vimalraj Balachandiran
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BACKGROUND & OBJECTIVES

Pre-Exposure Prophylaxis (PrEP) is a clinically proven population-level strategy to prevent HIV acquisition. However, the operational success of public PrEP rollout hinges upon baseline community awareness, accurate health literacy, and equity of access.

To guarantee that **"no one gets left behind"** in national HIV eradication roadmaps, this study evaluates baseline understanding, exposure to education, and prevalent misperceptions across key demographics in Northern Malaysia.

- **Primary Aim:** Systematically quantify baseline public knowledge, awareness, and attitudes toward PrEP.
- **Targeted Focus:** Uncover structural health literacy deficits and community-specific myths hindering uptake.

METHODOLOGY & DESIGN

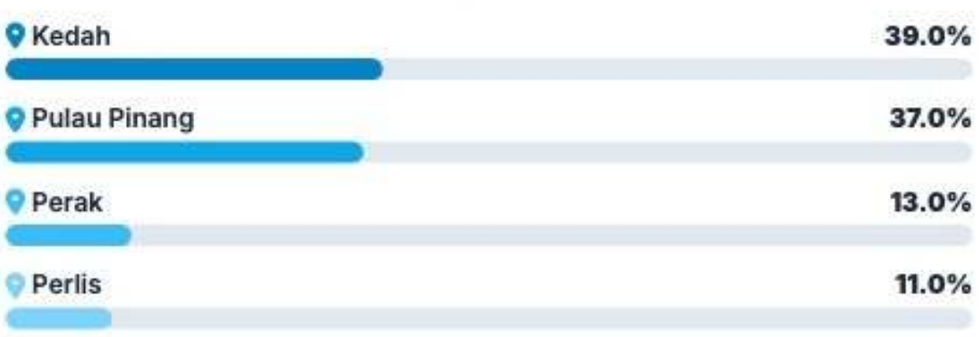
A structured cross-sectional survey instrument was deployed across Northern Peninsular Malaysia to gather quantitative data.

STUDY POPULATION	DEMOGRAPHICS
N = 203 Respondents	**Age, Gender, Race**

- **Diagnostic Domains:** Prior HIV/STI testing, verified PrEP exposure channels, and clinical indication knowledge.
- **Myth Probing:** Beliefs on curative potential, contraception, and unauthorized retail.

GEOGRAPHIC REPRESENTATION

Total sample size: **N = 203** spanning the 4 Northern states:



KEY RECOMMENDATIONS

01 **Targeted Campaigns:** Scale PrEP awareness initiatives focusing on high-density populations in Kedah and Penang.

02 **Multilingual Media:** Co-design culturally sensitive educational brochures addressing religious concerns and stigma.

03 **Grassroots Outreach:** Bolster community-level partnerships in underserved peri-urban health districts.

TESTING VS. PREP LITERACY DISPARITY

A pronounced paradox exists between high testing uptake and basic preventive pharmacotherapy literacy:

82.8%	65.5%	58.6%
PRIOR HIV TESTING	EVER HEARD OF PREP	UNDERSTOOD PURPOSE

Critical Information Void: 54.2% of respondents reported having *never seen* any PrEP educational materials.

PREVALENT MYTHS & KNOWLEDGE GAPS



DISCUSSION

While clinical testing penetration is commendable (82.8%), biomedical prevention literacy remains severely fragmented. The high prevalence of curative misbeliefs (25.6%) and contra-indicated expectations (birth control: 19.7%) underscores that exposure to testing does not organically translate into PrEP comprehension.

The substantial proportion (44.8%) restricting PrEP indication solely to discordant partnerships risks excluding individuals with multiple partners or non-disclosed transmission risks.

CONCLUSION

To innovate HIV prevention and achieve zero new transmissions across Northern Malaysia, public health campaigns must promptly debunk pervasive community myths, clarify formal prescription protocols, and bridge educational deficits to optimize population-level eradication.

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NAC26 EP007

Digital Health in Enhancing Antiretroviral Therapy Adherence: A Systematic Review and Meta-Analysis

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All contents | Track A list | Track B list | Track C list

DIGITAL HEALTH TECHNOLOGY IN IMPROVING ANTIRETROVIRAL THERAPY ADHERENCE: A SYSTEMATIC REVIEW AND META-ANALYSIS.

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Introduction

- Adherence to antiretroviral therapy (ART) remains the cornerstone of long-term viral suppression and successful treatment outcomes among people living with HIV (PLHIV).
- The use of digital health technology is believed one of the most important strategies to improve ART adherence.

Objective

- The aim of this study was to systematically determine the impact of digital health technology in improving adherence among PLHIV.

Methods

Inclusion Criteria
- ART adherence as an outcome
  - Using specific method of adherence tool
- Reports on adherence level
  - Adult > 18 years old
  - English articles

Search Strategy (PICO)

Population – PLHIV on ART
Intervention – use of digital health technology
Comparison – formal control group as standard management
Outcome – ART adherence measurement

Electronic Database Search
Scopus, Web of Science (WoS), PubMed, Ovid, EBSCOHost and Google Scholar

Risk of Bias Assessment
Cochrane Handbook of Systematic Reviews

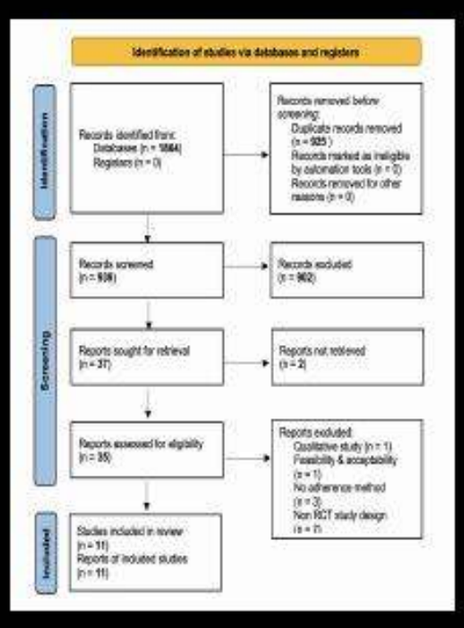


Figure 1: PRISMA flow chart of study selection

Results

Characteristic of Included Studies

- 11 RCT studies included
- 5 studies from USA, 1 study each from Malaysia, Singapore, China, Cameroon, India, Uganda

- Treatment experienced – 7 studies
- Newly initiated ART – 4 studies

- 3 studies – PLHIV with history of drug use

Digital health technology:
- 6 studies – SMS or text message alone
- 3 studies – mobile app
- 2 studies – combination of SMS + phone call

Adherence measures used:
- Pill count
- Self-reported
- Medication Event Monitoring System (MEMS)
- Real-time adherence monitoring

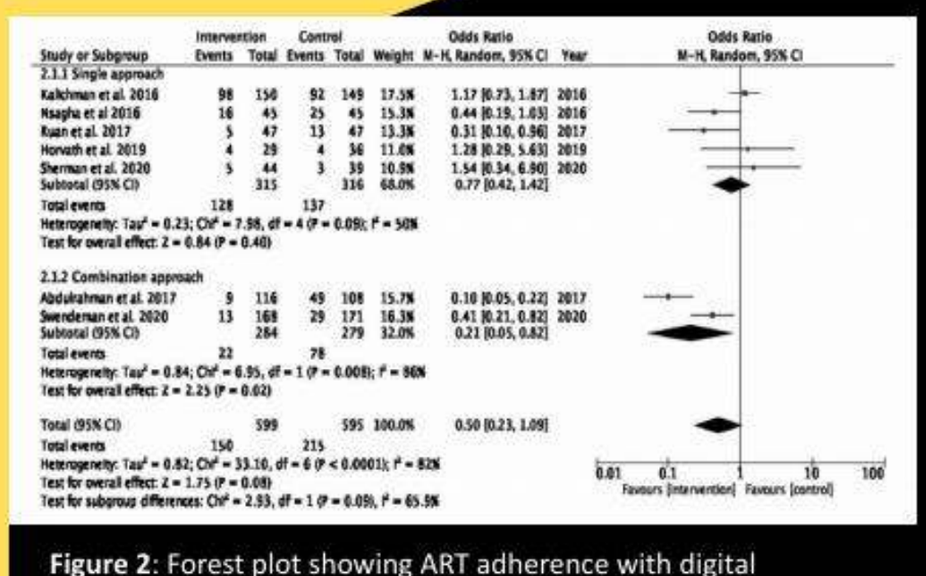


Figure 2: Forest plot showing ART adherence with digital intervention

Discussion

Only 4 studies which used SMS showed that digital health technology significantly improved PLHIV to ART adherence. → SMS widely used due to its wide-ranging, simplicity, low cost and flexibility.

The efficiency of using mobile applications as reminder method is currently unknown. → All studies recruited a limited sample size and due to ceiling effect of adherence.

Meta-analysis showed no significant difference for ART adherence between intervention and control groups. → Limited sample size, reduced power of included studies and scarcity of studies.

Combination approach can improve ART adherence → Its efficacy is limited, diminishes over time and varies across countries.

Conclusion

- Overall, these available data did not demonstrate any benefit of digital health as a sole intervention in enhancing ART adherence among PLHIV.
- However, combination approaches showed significant benefits in improving adherence.
- New innovative approach in adopting digital health technology using combination method is needed to prove its effectiveness.

Included studies

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Evaluation of the Methadone Replacement Therapy Program and Predictors of HIV Infection Among Clients in Perak, Malaysia

Punita Manoharan
Gregory Xavier
Jabatan Kesihatan Negeri Perak

KEMENTERIAN KESIHATAN MALAYSIA

EVALUATION OF THE METHADONE REPLACEMENT THERAPY PROGRAM AND PREDICTORS OF HIV INFECTION AMONG CLIENTS IN PERAK, MALAYSIA

Punita Manoharan, Gregory Xavier, Faeiz Syezri, Muhammad Siddiq Bin Daud, Norhalilah Bt Abdullah, Husna Maizura

INTRODUCTION

Substance use disorder is a chronic condition requiring long-term treatment and support (Ali et al., 2018; Chen et al., 2017; Ministry of Health Malaysia, 2016). In Malaysia, the Ministry of Health delivers harm reduction via public and private Methadone Replacement Therapy (MRT) programs. The objectives of this program is to firstly to reduce the transmission of blood-borne diseases (HIV and Hepatitis C) among injection drug users and to help and treat patients with addiction problems, especially from opiates, and thereby improve the quality of life of these patients (Ministry of Health Malaysia, 2016)

OBJECTIVE

- To determine the predictors of HIV infection among methadone replacement therapy (MRT) clients in Perak.
- To determine the sociodemographic characteristics of methadone replacement therapy (MRT) clients in Perak.
- To evaluate the MRT Program in Perak in terms of its effectiveness in reducing the transmission of HIV, and AIDS.

METHODOLOGY

A cross-sectional study was conducted using retrospective records up to 2025 from the Perak State Health Department. The study evaluated 1,345 MRT participants across 40 health facilities. Relative Risk with a 95% Confidence Interval was calculated to assess changes in HIV prevalence. Bivariate and multivariate logistic regression analyses were performed to identify predictors of HIV infection.

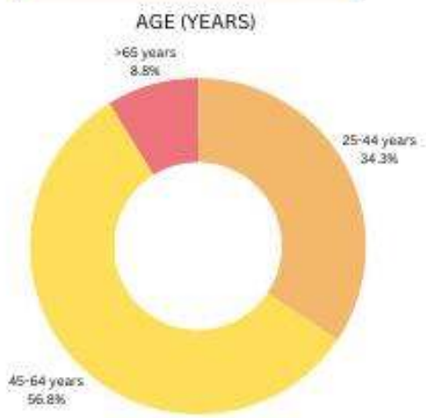
RESULT

The cohort was predominantly male (97.9%,) and aged 45–64 years (56.4%,), followed by those aged 25–44 years (34.3%,). Seven participants tested positive for HIV prior to enrollment, whereas 17 tested positive at the most recent evaluation. The majority of clients identified as heterosexual (98.4%, n = 1,323), followed by homosexual (0.9%, n = 12) and transgender (0.7%, n = 9).The longitudinal analysis demonstrated a statistically significant relative risk of 2.43 (95% CI ; 1.01 to 5.84, p<0.05). Bivariate analysis identified Hepatitis C virus (HCV) co-infection, history of injection drug use, and age as significant predictors of HIV status (p<0.05). However, multivariate analysis revealed that only HCV co-infection remained an independent predictor of HIV infection (OR=3.08;95% CI 1.03 to 10.32, p<0.05)

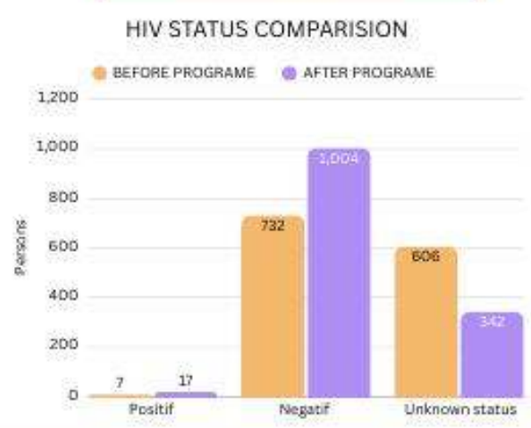
ANALYSIS

Predictor	Adjusted OR	95% CI	p
Hepatitis C positive	3.08	1.03 – 10.72	0.045
Injecting drug use (PWID)	1.72	0.55 – 6.92	0.362
Age (per year)	1.03	0.97 – 1.10	0.327
Unemployed	1.35	0.36 – 4.43	0.608

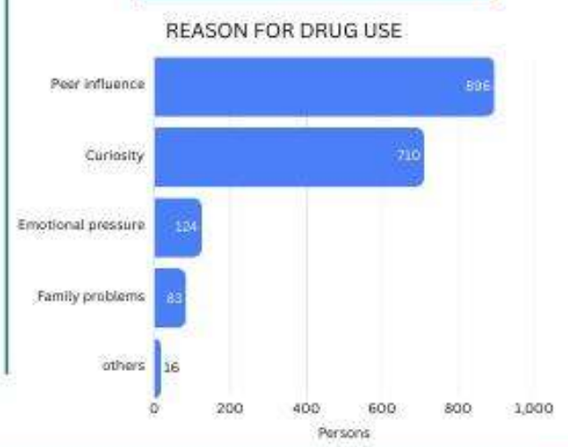
AGE DISTRIBUTION



HIV COMPARISON



REASONS FOR DRUG USE



CONCLUSION & DISCUSSION

In conclusion, active participation in the methadone program is associated with early detection and controlled management of HIV infection. Although the observed increase in cases is likely driven by prolonged incubation periods or initial underdetection at program enrollment, missing data limits the ability to differentiate true incidence from program effectiveness. Therefore, integrating robust HCV screening and treatment into existing MRT infrastructure is critical to mitigating the compounding risk of HIV co-infection.

NAC26 EP033

Awareness and Willingness to Use Pre-Exposure Prophylaxis (PrEP) for HIV Among Private University Students in Malaysia

Hemavaty Marar
Cheah Min Hui
University

AWARENESS AND WILLINGNESS TO USE PRE-EXPOSURE PROPHYLAXIS FOR HIV AMONG UNIVERSITY STUDENTS IN MALAYSIA

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Taylor's University

INTRODUCTION

Background
HIV remains a major global public health concern, with approximately 40.8 million people living with HIV worldwide. In Malaysia, HIV transmission has shifted from injecting drug use to sexual transmission, particularly among young adults. PrEP is a highly effective prevention strategy, reducing the risk of sexual HIV transmission by approximately 99% when taken as prescribed.

Problem Statement
Despite its effectiveness, PrEP awareness among Malaysian university students remains limited. Previous studies mainly focused on medical students from a single institution, limiting generalisability. Therefore, this study evaluates PrEP awareness and willingness to use PrEP among university students from diverse academic backgrounds in Malaysia.

OBJECTIVES

General Objective
To assess awareness of PrEP and willingness to use it for HIV prevention among university students in Malaysia.

Specific Objectives
1. Identify sexual activities and sexual behaviours among university students.
2. Compare PrEP awareness and willingness to use PrEP between health-related and non-health-related students.
3. Identify sources of HIV knowledge.
4. Assess willingness to continue condom use while on PrEP.

METHODOLOGY

Item	Description
Study Design	Quantitative cross-sectional study
Population	University students in Malaysia
Sampling Method	Convenience sampling
Sample Size Collected	200 university students in Malaysia
Data Collection	Google Form

Item	Description
Data Analysis	SPSS Version 32.0
Statistical Test	Descriptive statistics and Chi-square
Significance Level	$p < 0.05$
Study Period	February–June 2026

RESULTS

A total of **200 university students** participated in this study, comprising **56 (28.0%) health-related** and **144 (72.0%) non-health-related** students. Most participants were **aged 21–24 years (73.5%)** and were **undergraduate students (86.5%)**. Overall, **35.5% (n = 71) reported being sexually active.**

KEY FINDINGS
- Inconsistent/no condom use: 54.9%
- Regular sexual partners: 71.0%
- Moderate HIV risk perception: 76.7%
- Main HIV knowledge source (Health-related students): Lectures/Talks (85.7%)
- Main HIV knowledge source (Non-health-related students): Internet (74.3%) & Social Media (70.8%)

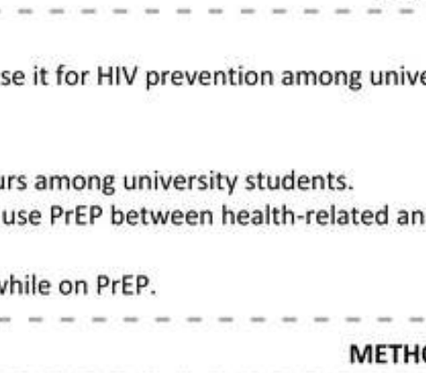


Figure 1: Awareness of PrEP

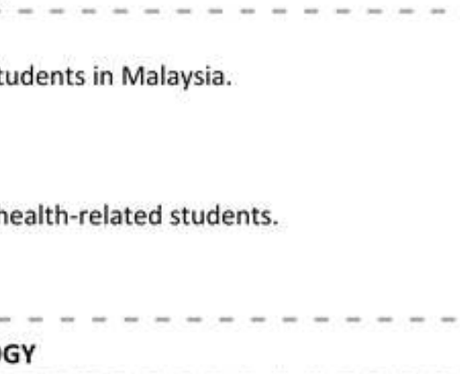


Figure 2: Willingness to Use PrEP



Figure 3: Willingness to Use Condom While on PrEP

DISCUSSION

- Health-related students demonstrated significantly higher PrEP awareness than non-health-related students, possibly due to greater exposure to HIV-related education obtained through lectures and talks. However, awareness among non-health-related students remained relatively low, indicating a need for targeted PrEP educational initiatives.
- Despite differences in awareness, willingness to use PrEP was high among both groups. This may be related to the moderate HIV risk perception reported by most sexually active participants (76.7%). Additionally, increased willingness following the provision of PrEP information highlights the potential impact of targeted educational interventions on PrEP uptake.
- The high proportion of inconsistent condom use among sexually active students highlights the importance of comprehensive HIV prevention strategies. PrEP should complement, rather than replace, condom use because condoms also provide protection against other sexually transmitted infections.

CONCLUSION

- One-third of the students reported being sexually active, inconsistent condom use was common.
- Health-related students had significantly higher PrEP awareness than non-health-related students.
- Willingness to use PrEP was high among both groups.
- The internet and social media were the primary sources of HIV knowledge.
- Health-related students were more willing to continue condom use while on PrEP.
- Findings highlight the need to strengthen HIV and PrEP education among university students, particularly those from non-health-related backgrounds.

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NAC26 EP036

Effectiveness of the PROSTAR Education Programme in Improving HIV/AIDS Knowledge Among Adolescents in a Religious Boarding School in Negeri Sembilan

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KEMENTERIAN KESIHATAN MALAYSIA

Effectiveness of the PROSTAR Education Programme in Improving HIV/AIDS Knowledge Among Adolescents in a Religious Boarding School in Negeri Sembilan

PROSTAR 2.0

Ahmad Zaheer Mohd, Ismawati Ismail, Suriyati Abd Aziz, Zuraida Mohamed
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1 Introduction

Adolescents in religious boarding schools may have limited access to comprehensive HIV/AIDS education because of sociocultural sensitivities, increasing misconceptions and HIV-related stigma. Program Sihat Tanpa AIDS untuk Remaja (PROSTAR), a national adolescent health promotion initiative by the Ministry of Health Malaysia, aims to improve HIV knowledge, dispel myths, and foster positive attitudes towards people living with HIV.

2 Objective

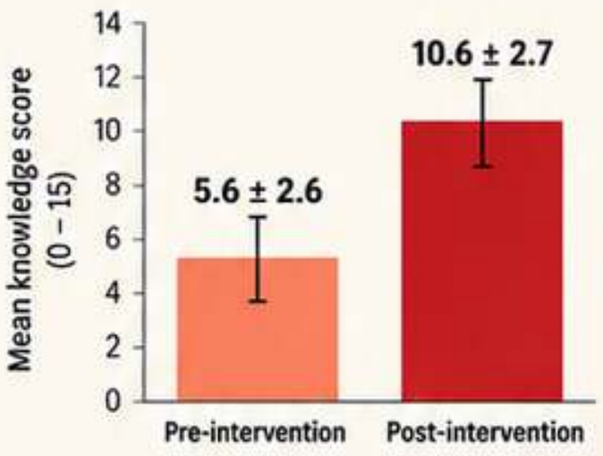
To evaluate the effectiveness of the PROSTAR education programme in improving HIV/AIDS knowledge among adolescents attending a religious boarding school.

3 Methodology & Participants

- Quasi-experimental one-group pre-test/post-test study.
- **312** adolescents aged **13–16** years from a religious boarding school in Negeri Sembilan.
- Participants: **162 (51.9%)** males and **150 (48.1%) females.**
- PROSTAR was delivered through **eight one-day sessions** in **July 2025,** with participants grouped by age and gender.
- HIV/AIDS knowledge was assessed using a **validated 15-item questionnaire** before and immediately after the intervention.
- Anonymous questionnaires without unique identifiers were analysed as independent samples using independent-samples t-tests.

4 Main Results

Mean HIV/AIDS knowledge scores



t(622) = 23.50, p < 0.001

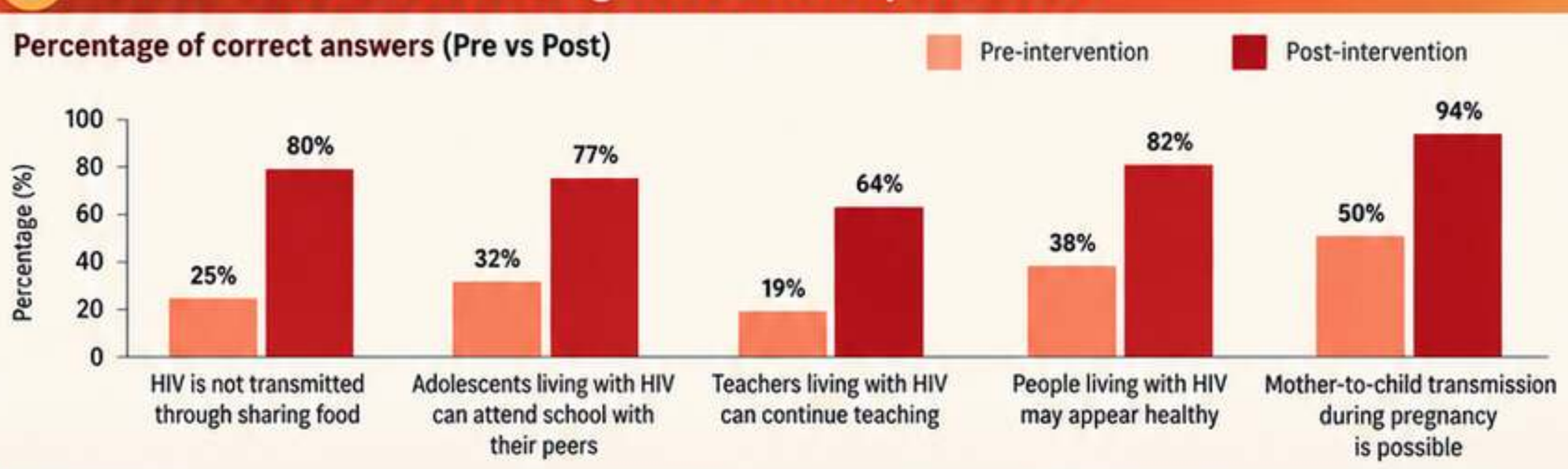
Mean improvement: 5.01 points (95% CI: 4.59 – 5.43)

Cohen's d = 1.88

Sex-differentiated knowledge scores (mean ± SD)

Assessment	Male (n = 162)	Female (n = 150)	p-value
Baseline	5.13 ± 2.61	6.11 ± 2.52	$p < 0.001$
Post-intervention	10.23 ± 2.78	11.02 ± 2.59	$p = 0.010$

5 Selected HIV/AIDS Knowledge and Misconception Items



6 Conclusion

PROSTAR substantially improved HIV/AIDS knowledge and corrected misconceptions among adolescents in a religious boarding school. Structured, culturally sensitive HIV education is feasible and effective in religious educational settings and supports wider implementation to strengthen adolescent health literacy and reduce HIV-related stigma.

7 Limitations

- Knowledge was assessed immediately after the intervention.
- Anonymous questionnaires had no unique identifiers and were therefore analysed as independent samples.

Take-home message

PROSTAR substantially improved HIV/AIDS knowledge among adolescents in a religious boarding school, increasing mean scores from 5.6 ± 2.6 to 10.6 ± 2.7, with a very large effect size (Cohen's d = 1.88).

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Healthier Adolescents Brighter Tomorrow

NAC26 EP039

Association Between Social Media Use for Sexual Partnering and Risk of Sexually Transmitted Diseases Among Sexual Health Clinic Attendees in Kinta District, Malaysia

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Arvinder Singh HS, Thum Chern Choong, Theyveeka Selvy, Saravanan A Santhirarajan
Malaysia Medical Association AIDS STI Committee / Perak State Health Department

All contents | Track A list | Track B list | Track C list

MALAYSIAN MEDICAL ASSOCIATION
AIDS and STI's Committee

Association Between Social Media Use for Sexual Partnering and Risk of Sexually Transmitted Diseases Among Sexual Health Clinic Attendees in Kinta District, Malaysia

Presenter/Authors: Dr Gregory Xavier, Dr Arvinder Singh HS, Dr Thum Chern Choong, Dr Theyveeka Selvy, Dr Saravanan A Santhirarajan
Affiliations: Malaysia Medical Association – AIDS STI's Committee

INTRODUCTION

- Social media platforms have revolutionized human networking, increasingly becoming a baseline platform for cultivating personal and sexual relationships.
- However, this digital shift facilitates altered dynamics in partner turnover, raising distinct public health challenges regarding sexually transmitted diseases (STDs).
- Understanding specific behavioral variables within clinical settings is critical to designing targeted contemporary safe-sex interventions.

OBJECTIVES

This study aimed to assess the association between social media–mediated partner seeking and STD risk among clinic attendees

METHODOLOGY

Study Design: Cross-sectional clinical trial design.
Setting & Population: Active clients attending a specialized sexual health clinic located within the Kinta District, Malaysia.
Data Collection: Validated self-administered questionnaire measuring demographic profiles, specific social media platform preferences, sexual behavior metrics, and clinical history.
Statistical Analysis: Univariate and multivariate logistic regression analyses to determine Odds Ratios (OR) and Adjusted Odds Ratios (AOR) with a 95% Confidence Interval (CI).

RESULTS

Below is the multivariate analysis evaluating behavioral and digital variables against baseline parameters. Highlighting key predictors showing notable significance profile adjustments ($p < 0.05$).

Variable	Category	OR (95% CI)	p	AOR (95% CI)	p
1. Age	Mean (SD)	0.98 (0.94-1.02)	0.25	0.94 (0.89-1.00)	0.07
2. Gender	Male Female Transgender	2.97 (0.78-11.27) 1.33 (0.17-10.74) Ref	0.18	3.36 (0.20-58.05) 1.13 (0.04-34.47) Ref	0.62
3. Financial status	B40 M40 T20	3.69 (1.26-10.79) 2.04 (0.62-6.67) Ref	0.03	2.84 (0.44-18.47) 3.71 (0.49-28.01) Ref	0.45
7. Know partner status before sex	Yes No	Ref 1.63 (0.85-3.12)	0.14	Ref **2.82 (1.10-7.20)**	**0.03**
8. Continue sex if positive	Yes No Maybe	6.79 (1.41-32.68) Ref 1.94 (0.68-5.53)	0.02	4.44 (0.54-36.43) Ref 2.41 (0.57-10.14)	0.20
10. Use social media after STI	Yes No Maybe	4.56 (1.87-11.15) Ref 1.48 (0.70-3.12)	0.001	**7.46 (1.98-28.12)** Ref 1.17 (0.44-3.06)	**0.01**

DISCUSSION

- High Risk Association: Individuals unaware of their partner's STD status pre-intercourse exhibited a significantly higher risk profile, adjusting to an AOR of 2.82.
- Digital Platform Persistence: Continuing platform utilization to find partners post-contracting an STI yielded the most substantial predictive risk correlation (AOR: 7.46, p=0.01).
- The rapid turnaround capability provided by location-aware social networking applications requires updating classical epidemiological tracing models to address digital landscapes.

Limitations. This study has a few limitations. First, the clinic-based sample limits generalizability to the broader population. Second, the cross-sectional design precludes causal inference. Third, self-reported data may be subject to recall and social desirability bias. Finally, the questionnaire demonstrated moderate reliability and did not include standardized measures of social media use intensity.

CONCLUSION

Social media significantly influences sexual networking and is associated with STD risk among clinic attendees. Key risk factors include lack of awareness of partner infection status and continued high-risk behavior following diagnosis. Integrating digital-focused interventions into sexual health programs may help reduce STD transmission.

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NAC26 EP045

The effectiveness of a PROSTAR 2.0 HIV Education Intervention on Knowledge and Attitudes towards HIV/AIDS among pre-service teachers in Institut Pendidikan Guru (IPG) Kampus Ilmu Khas (KIK) in Cheras FT Kuala Lumpur: A pre-post evaluation study

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KEMENTERIAN KESIHATAN MALAYSIA

THE EFFECTIVENESS OF A PROSTAR 2.0 HIV EDUCATION INTERVENTION ON HIV/AIDS KNOWLEDGE AND ATTITUDES AMONG PRE-SERVICE TEACHERS IN CHERAS FT KUALA LUMPUR: A PRE–POST EVALUATION STUDY

Pejabat Kesihatan Cheras

Zakaria M.K.A*., Ramli R.*, Mohamad N.*, Aziz N.*
*Pejabat Kesihatan Cheras, FT Kuala Lumpur

INTRODUCTION

Knowledge gaps and HIV-related stigma remain key barriers to HIV prevention among young people. PROSTAR 2.0 is an interactive MOH HIV education programed designed to improve HIV/AIDS knowledge and attitudes. Evidence among pre-service teachers remains limited.

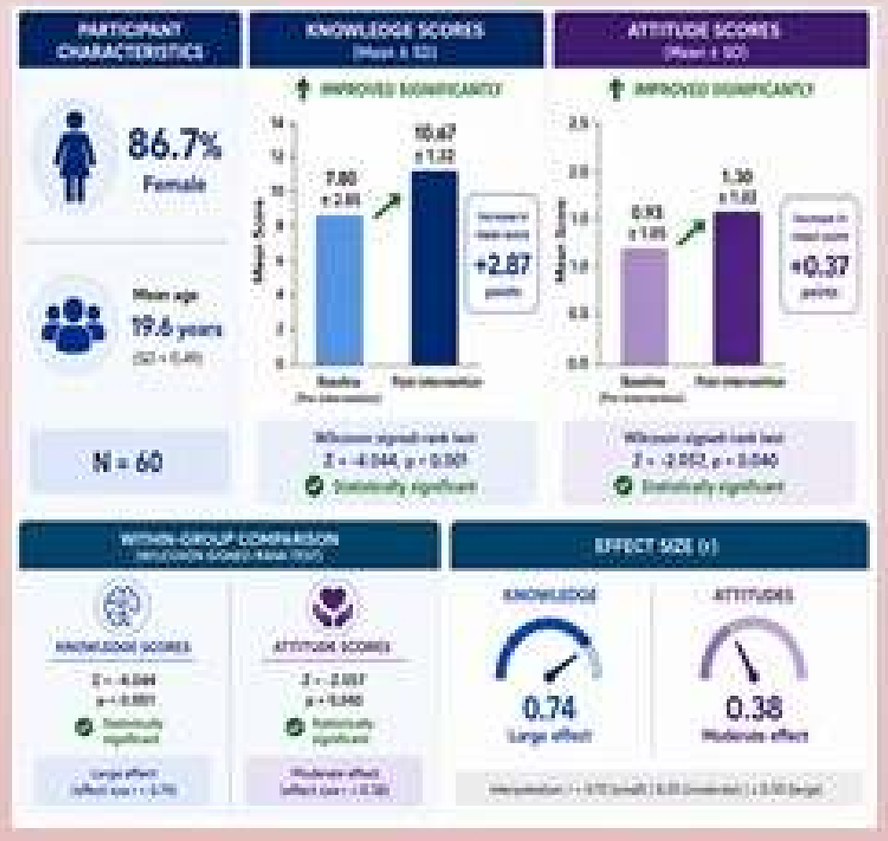
OBJECTIVE

To evaluate the effectiveness of PROSTAR 2.0 in improving HIV/AIDS knowledge and attitudes among pre-service teachers at IPG Kampus Ilmu Khas by comparing pre–post scores and the magnitude of change.

METHODOLOGY



RESULTS



DISCUSSION

- PROSTAR 2.0 was associated with significant gains in both outcomes.
- The large knowledge effect suggests substantial educational benefit, while the moderate attitude effect indicates that stigma-related attitudes may require sustained reinforcement.
- As future educators, participants may support more informed and stigma-sensitive HIV education.
- Study limitations are small sample, single institution and no control group.

CONCLUSION

- PROSTAR 2.0 was associated with significant improvements in HIV/AIDS knowledge and attitudes among pre-service teachers.
- Integrating interactive HIV/AIDS education into teacher training may strengthen HIV literacy and stigma reduction. Larger, more diverse controlled studies are recommended before wider implementation.

Key Message — **PROSTAR 2.0 shows promise as an interactive HIV education approach for future educators.**

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NAC26 EP051

3-Month Proportion of Retention and Its' Associated Factors among HIV PrEP Program Clients in Kelantan

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Universiti Sains Malaysia (USM)

ID: NAC26EP051

Sustaining Protection: Key Drivers of Early PrEP Retention in Kelantan Public Primary Care

USM/JEPeM/KK/25110973 & NMRR ID: 25-03963-RED

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INTRODUCTION

- Sexual transmission now accounts for 95% of new HIV diagnoses in Malaysia predominantly among Men Who Have Sex with Men (MSM), marking a major shift from historical injecting drug use.[1]
- In response, Malaysia introduced Pre-Exposure Prophylaxis (PrEP) under the National Strategic Plan for Ending AIDS 2030, leveraging its up to 99% efficacy in preventing sexual HIV acquisition.[2, 3]
- But, delivering PrEP in Malaysia even in urban areas faces distinct socio-legal, cultural, and structural access barriers, let alone in semi-urban and conservative settings like Kelantan, in which the issues may be amplified.
- With national plan to expand the service, Kelantan, currently operating as one-centre PrEP Pilot Program with operational phase and flow as summarized in **Figure 1** is also expected to expand its service.

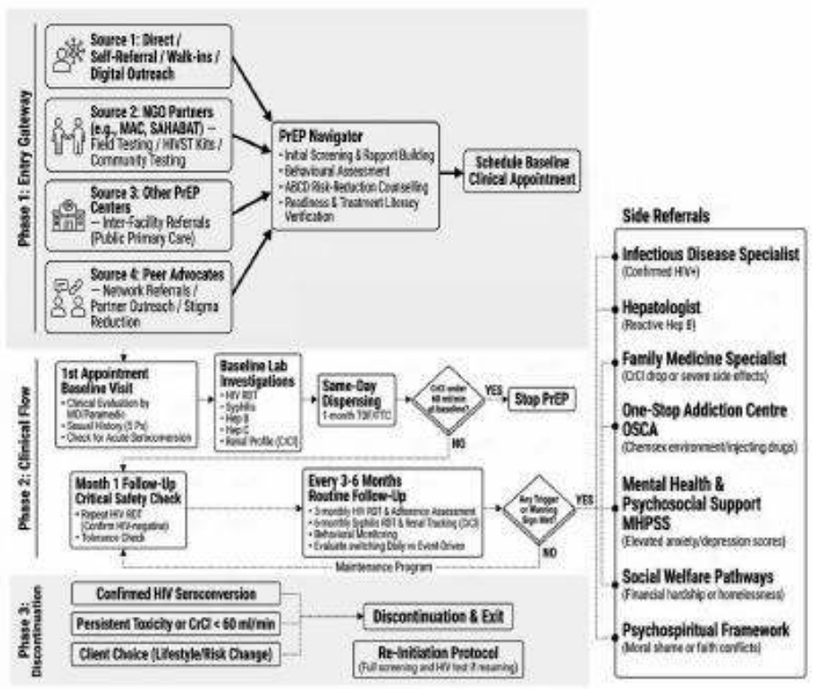


Figure 1. Operational Phases of HIV PrEP Program and Flow at Klinik Kesihatan Kota Jembal, Adapted from MOH, 2025)

- Hence to ensure sustainability and efficacy of the program along with the expansion, evaluating the retention and identifying local driving factor or its barrier is important. However, there is not yet published input on those, since the national rollout.
- And despite the efficacy, PrEP Program success depends on adherence, with global implementation data demonstrate that drop-out peaks within the first 1 to 3 months of care.[4, 5]

OBJECTIVES

Hence, this study is aimed **to determine the 3-month retention proportion among HIV PrEP program clients in Kelantan** and **Identify independent sociodemographic, health system, and behavioural factors associated with 3-month PrEP care retention.**

METHODOLOGY

- This study is a retrospective cohort study evaluating secondary administrative records at Klinik Kesihatan Kota Jembal, the primary public sector PrEP implementation facility covering the state of Kelantan.

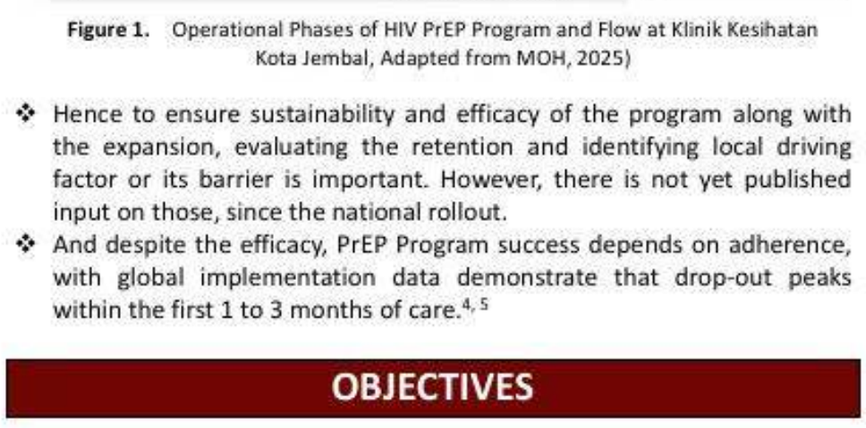


Figure 2. Methodology Flowchart of Study Population and Outcomes ($N = 155$)

RESULTS & DISCUSSION

1. **Baseline cohort profile (N = 155):** The study population had a mean age of 27.21 ± 5.38 years, comprising predominantly biological males (97.4%, $n = 151$), Malay ethnicity (91.6%, $n = 142$), homosexual orientation (79.9%, $n = 123$), and individuals navigating multiple concurrent partnerships (85.2%, $n = 132$). High educational attainment (44.9%, $n = 66$ tertiary) and formal employment (38.6%, $n = 59$) facilitated early uptake.
2. **3-Month Retention Performance: R**etention reached 76.1% (n=118; 95% CI: 69.4, 82.8), outperforming early retention benchmarks reported in global implementation settings.[4, 5]
3. **Geographical Residence Impact:** Clients residing within the facility district ($n = 106$) achieved 79.2% ($n = 84$) retention and 20.8% ($n = 22$) attrition, whereas those living outside the district ($n = 49$) showed lower retention (69.4%, $n = 34$) and higher attrition (30.6%, $n = 15$). Although non-significant in multivariable modeling, traveling long transit distances acts as an operational hurdle triggering treatment drop-out. [6, 7]

Table 1 Multiple Logistic Regression Analysis of Factors Associated with 3-Month Retention to PrEP Care (n=155)

Variable	Crude OR (95% CI)	Adjusted OR (95% CI)	*p* -value
Age	1.19 (1.07, 1.33)	1.19 (1.07, 1.32)	0.002
Source of Referral			0.058
PrEP Navigator (Direct Source)	Ref	Ref	-
Other PrEP Center/ Healthcare Facility	1.28(0.23, 7.13)	0.96 (0.15, 5.91)	0.961
NGO	5.50(1.75, 17.30)	5.04 (1.56, 16.29)	0.007
Peer Advocate	1.54(0.62 ,3.82)	1.33 (0.51, 3.48)	0.563

Note: Statistical significance set at p<0.05. Stepwise Forward LR, Backward LR, and Enter methods (Constant = -3.714). No multicollinearity or interaction terms detected. Hosmer–Lemeshow goodness-of-fit p=0.660; Classification Accuracy = 75.5%; Area Under ROC Curve (AUC) = 74.7%.

4. **Advancing Age as a Retention Predictor:** Every single-year increase in client age was independently associated with a 19% increase in 3-month retention odds (aOR $= 1.19$; 95% CI: 1.07, 1.32; $p = 0.002$), with retained clients having a higher mean age (28.04 ± 5.64 years) than non-retained clients (24.54 ± 3.29 years).
5. **Youth Attrition Risk:** Younger age emerged as a primary vulnerability factor for early discontinuation, mirroring trends in Thai and Namibian cohorts where younger users faced elevated drop-out risks due to competing academic/career priorities, evolving self-autonomy, and fear of disclosure. [5, 8]
6. **Community-Led NGO Protection:** Entry via NGO pathways independently predicted retention, with clients demonstrating **5.04-fold higher retention odds** (aOR=5.04; 95% CI: 1.56, 16.29; p=0.007) than direct clinic navigator walk-ins.
7. **Formalizing Peer Trust:** NGOs bridge informal peer networks and formal healthcare systems by housing peer advocates within structured, resourceful organizations. This informal-to-formal care transition provides non-judgmental literacy and pre-enrolment preparation, insulating clients against early clinical drop-out in conservative environments. [3, 6]
8. **The strength** of this study lies in its high data integrity achieved through total census sampling (N=155) of cross-verified clinical records, which eliminated selection bias and provided pioneer evidence on Malaysia's public primary care PrEP rollout. Additionally, multivariable modeling cross-verified across three selection strategies demonstrated high predictive validity, supported by strong model calibration (Hosmer-Lemeshow p=0.660) and discrimination (AUC=0.747).
9. **Study limitations** include a modest, demographically homogenous pilot sample (N=155; 91.6% Malay, 97.4% male) that caused cell data sparsity and wider confidence intervals for smaller sub-groups. Relying on secondary clinic records also prevented tracking unrecorded structural access barriers (e.g., travel costs, transit times) while leaving self-reported behavioral risks vulnerable to social desirability bias.

CONCLUSION & RECONMENDATION

Conclusion: 3-month PrEP retention in Kelantan reached 76.1%, independently driven by advancing age and NGO entry pathways.

Recommendation:

1. Formalize Public-NGO Shared-Care Protocols: Establish institutionalized referral algorithms and resource-sharing between primary care clinics and community-based organizations (e.g., SAHABAT) to capitalize on peer-driven pre-enrolment literacy and trust.
2. Implement Youth-Friendly Care Models: Tailor flexible consultation schedules, digital adherence tracking, and privacy-enhanced communication channels to address self-autonomy and disclosure fears among younger clients.
3. Mitigate geographical transit burdens for out-of-district clients by expanding multi-month dispensing (MMD), community pharmacy refills, and digital follow-up options.

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Acknowledgement

The authors wish to thank the Director General of Health, Malaysia for his kind permission to present this poster.

TRACK B · PUBLIC HEALTH

NAC26 EP053

Excellent Viral Suppression Is Not Enough: Late HIV Presentation Remains the Critical Gap in Decentralised Primary Care HIV Services in Manjung, Perak, Malaysia

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Excellent Viral Suppression Is Not Enough
Late HIV Presentation Remains the Critical Gap in Decentralised Primary Care HIV Services in Manjung, Perak, Malaysia

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SIDCare
Sitiawan Infectious Disease Care
Klinik Kesihatan Sitiawan
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WHY THIS STUDY MATTERS

DECENTRALISED CARE — Access and continuity → **UNRESOLVED GAP** — Diagnosis remains late → **STUDY QUESTION** — Treatment outcomes + presentation

OBJECTIVE · Describe ART and viral-suppression outcomes, and identify factors associated with late presentation.

METHODOLOGY AT A GLANCE

01 **DESIGN** — Retrospective cohort
02 **SETTING** — KK Sitiawan 2022–2026
03 **COHORT** — 96 PLHIV
04 **OUTCOMES** — CD4 · ART · VL care status
05 **ANALYSIS** — Logistic regression age-adjusted

DEFINITIONS Advanced presentation: baseline CD4 <200 cells/mm³ · Viral suppression: latest VL <1,000 copies/mL

RESULTS

COHORT SNAPSHOT

- 96 — PLHIV in cohort
- 34 — Median age, years
- 89.6% — Male
- 90.6% — initiated ART

DIAGNOSIS PROFILE

LATE PRESENTATION (CD4)
25.6% — 20 of 78 with documented baseline CD4
CD4 <200 cells/mm³
18/96 baseline CD4 unavailable or unclear

TRANSMISSION
MSM — 45.8% · 44/96
Heterosexual — 40.6% · 39/96

CARE PATHWAY

34 Cases transferred out
96 Cohort (100%) → 87 ART initiated (90.6%) → 47 Active follow-up (49.0%) → 44 Suppressed (93.6% of active)

44 of 47 actively followed-up patients achieved viral suppression
Viral suppression: latest HIV viral load <1,000 copies/mL

LATE-PRESENTATION MODEL — Heterosexual transmission showed higher estimated odds, but the association was imprecise and not statistically significant. aOR 2.27, 95% CI 0.77–6.66
Baseline CD4 analysis n=78; late-presentation events n=20.

Current clinic status shown · 34/96 transferred out · post-transfer outcomes unavailable

WHAT THE RESULTS MEAN

TREATMENT STRENGTH
90.6% initiated ART
93.6% suppressed among active follow-up

DIAGNOSTIC GAP
25.6% presented with baseline CD4 <200 cells/mm³

ASSOCIATION UNCERTAIN
aOR 2.27
95% CI 0.77–6.66

TAKE-HOME MESSAGE

Treatment succeeds once people are engaged in care.
The next priority is earlier diagnosis.
Earlier testing · targeted outreach · stigma reduction · rapid linkage · continuity of care

LIMITATIONS Single centre · small sample · missing baseline CD4 · post-transfer outcomes unavailable

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NAC26 EP055

MIND Module: An Innovative Public Health Intervention to Improve ART Adherence and Mental Well-Being Among People Living with HIV in Malaysia

Mohemmad Redzuan Mohemmad Rizal
Syahrir Zaini, Norny Syafinaz Ab Rahman, Ramli Musa
Program Perkhidmatan Farmasi, Kementerian Kesihatan Malaysia

KEMENTERIAN KESIHATAN MALAYSIA

MIND Module: An Innovative Public Health Intervention to Improve ART Adherence and Mental Well-Being Among People Living with HIV in Malaysia

Presenter: Mohemmad Redzuan bin Mohemmad Rizal
Kulliyyah of Pharmacy, International Islamic University Malaysia

INTRODUCTION

ART adherence remains challenging due to stigma, depression, and limited support.[1,2]

The MIND Module was developed to improve adherence through education, motivation, and emotional support.

OBJECTIVES

This study evaluated the impact of the MIND Module on ART adherence, viral suppression, treatment costs, drug wastage, and psychosocial well-being among PLHIV.

METHODOLOGY

- A mixed-methods study was conducted among 227 PLHIV receiving ART at public health facilities in Kuala Lumpur.
- The MIND Module was implemented over six months through structured sessions focusing on education, motivation, and emotional support.
- Quantitative data on adherence scores, viral load suppression, and drug utilisation were collected, while qualitative data from in-depth interviews explored patient experiences, satisfaction, and psychosocial changes.

Inclusion Criteria:

✓ PLHIV aged 18 years and above with ART for at least 12 months.
✓ Possess adequate mental and emotional functioning to participate.
✓ Able to provide informed consent and respond verbally.

Exclusion Criteria:

✓ PLHIV enrolled in the *Sistem Pengambilan Ubat Bersepadu* (SPUB) from other facilities.

STUDY SITE

Klinik Kesihatan Tanglin & Klinik Kesihatan Petaling Bahagia, Kuala Lumpur

RESULTS

1 ART Adherence

+16%

Adherence improved from **76.2%** to **92%**

Non-adherence reduced from 23.8% → 8%

2 Viral Suppression

+22%

Improved from **62%** to **84%**

Higher immune stability among PLHIV

3 Cost Efficiency

RM364,500

Annual savings from reduced wastage & second-line regimen

Wastage reduced by 67% (RM129,600 → RM43,200)

4 Patient Satisfaction & Psychosocial Outcomes

92%	87%	90%
Higher satisfaction with interactive counselling	Improved ability to manage stigma & emotions	Greater confidence to continue ART long-term

5 Qualitative Highlights

✅ Enhanced motivation to adhere to treatment
✅ Improved communication with healthcare providers
✅ Strengthened emotional resilience

DISCUSSION

The MIND Module enhances adherence, outcomes, and cost-effectiveness in HIV care, with potential for wider implementation and long-term impact nationwide.

CONCLUSION

The MIND Module is an effective public health approach that improves ART adherence, reduces stigma, and optimizes healthcare resources, supporting Malaysia's progress toward the UNAIDS 95-95-95 targets while enhancing the quality of life for PLHIV.

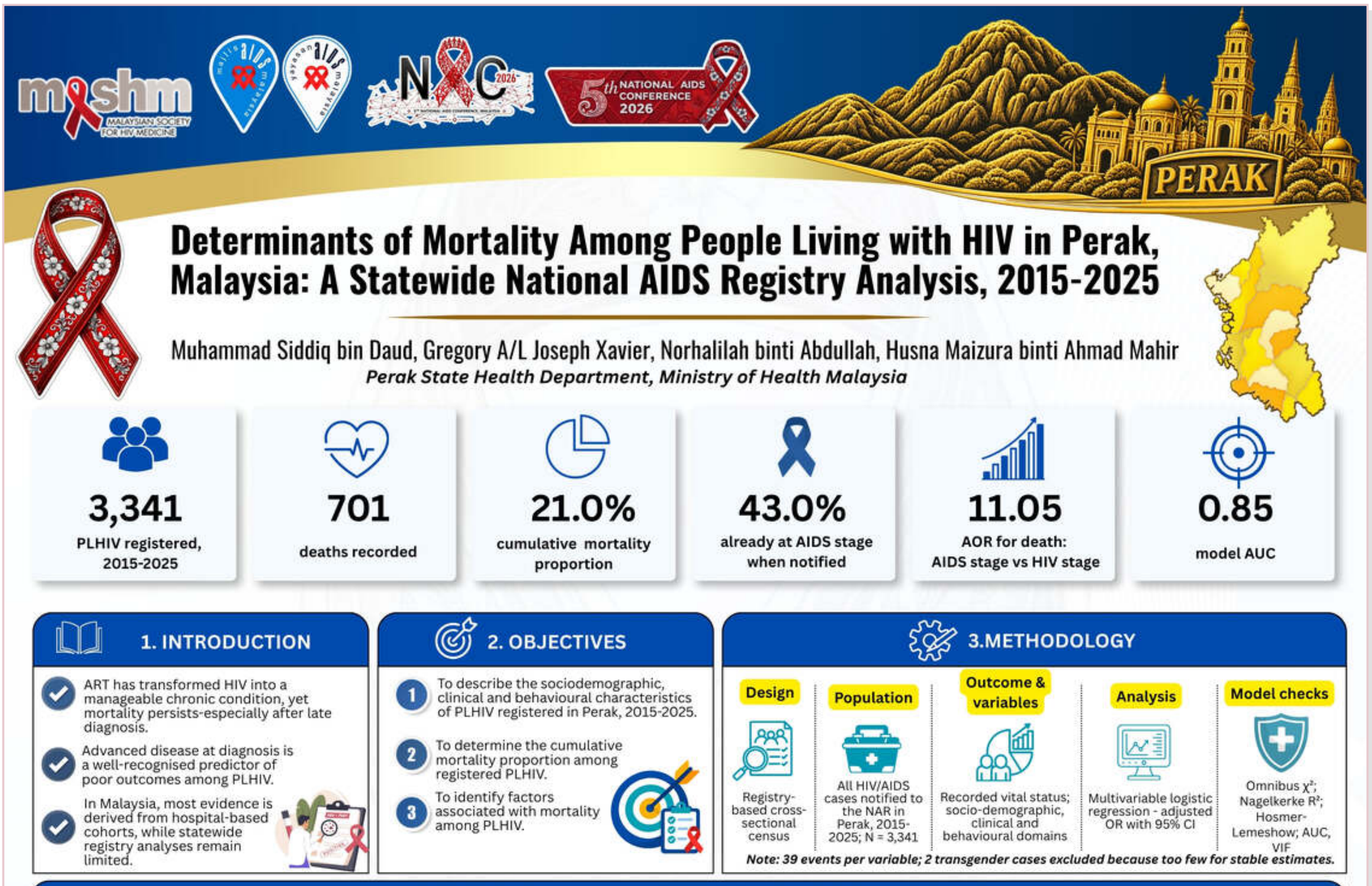
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Determinants of Mortality Among People Living with HIV in Perak, Malaysia: A Statewide National AIDS Registry Analysis, 2015–2025

Muhammad Siddiq Daud
Gregory Xavier, Norhalilah Abdullah, Husna Maizura Ahmad Mahir
Perak State Health Department



NAC26 EP073

Too Late for Prevention? High Burden of Advanced HIV Disease and Active Tuberculosis Limits Uptake of Tuberculosis Preventive Therapy in Hospital Sultan Ismail Petra, Kelantan, Malaysia

Norihan Zawahid
Noridah Nordin
Hospital Sultan Ismail Petra

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TOO LATE FOR PREVENTION?

HIGH BURDEN OF ADVANCED HIV DISEASE AND ACTIVE TUBERCULOSIS LIMITS UPTAKE OF TUBERCULOSIS PREVENTIVE THERAPY IN A MALAYSIAN DISTRICT HOSPITAL

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BACKGROUND

Tuberculosis (TB) remains the leading cause of morbidity and mortality among people living with HIV (PLHIV).

WHO recommends tuberculosis preventive therapy (TPT/IPT) for eligible PLHIV after excluding active TB.

However, late HIV diagnosis may result in advanced immunosuppression and active TB, reducing opportunities for preventive therapy.

OBJECTIVE

To determine the burden of advanced HIV disease, active TB and uptake of IPT among PLHIV receiving care at our center.

METHODS

- Retrospective review of the HIV treatment registry
- Malaysian HIV treatment centre
- Period of data extraction: Database up to July 2025
- Data extracted: demographic characteristics, baseline CD4 count, active TB status (**active TB or no TB**) and IPT initiation
- Advanced HIV disease defined as baseline CD4 <200 cells/µL
- Descriptive statistics used

> Late HIV presentation misses the window for TB prevention.
> ***Early diagnosis, early protection.***

CONCLUSION

Most PLHIV in our setting present with advanced HIV disease, and more than half already have active TB at diagnosis.

This substantially reduces the opportunity to initiate TB preventive therapy.

IPT uptake is low even among those without active TB, indicating missed opportunities for prevention.

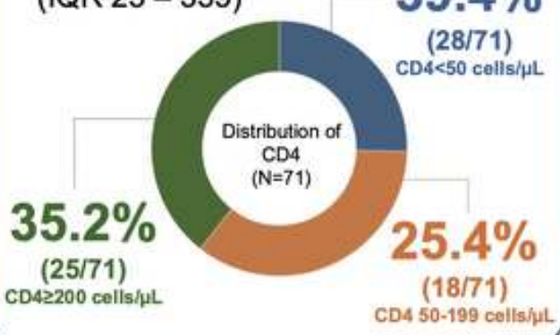
Earlier HIV diagnosis, rapid linkage to care, systematic TB screening and timely implementation of TB preventive therapy are essential to reduce the burden of HIV-associated TB

KEY FINDINGS (N=141)

- **141** Total PLHIV
- **71** (50.4%) Baseline CD4 count available
- **46**/71 (64.8%) Advanced HIV disease (CD4<200 cells/µL)
- **82**/141 (58.2%) Active tuberculosis
- **16**/141 (11.3%) Documented IPT initiation

BASELINE CD4 COUNT (N=71)

Median CD4 count
94 cells/µL
(IQR 25 – 335)



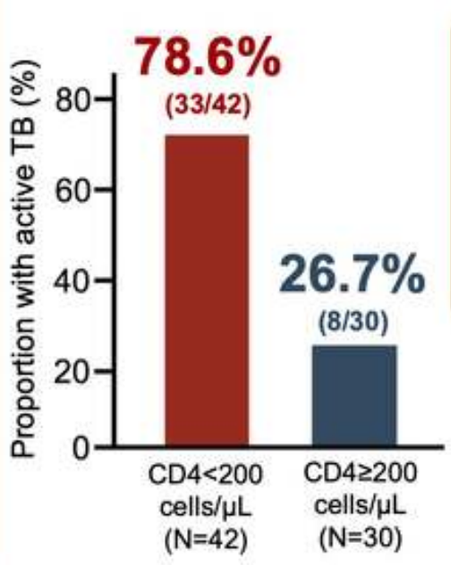
ACTIVE TB AND IPT UPTAKE

Active TB
82/141
(58.2%)
patients had active TB at HIV diagnosis

IPT uptake
16/141
(11.3%)
patients had documented IPT initiation

High burden of active TB and advanced HIV disease limit opportunities for TB preventive therapy.

CD4 STATUS AND ACTIVE TB (N=71)



Patients with CD4<200 cells/µL were significantly more likely to have active TB

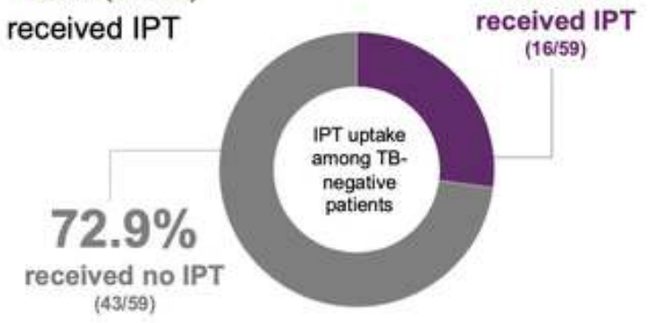
OR 10.4
(95% CI 3.8–28.2)

p<0.001

IPT AMONG PATIENTS WITHOUT ACTIVE TB

Patients without active TB
59/141 (41.8%)

Among them, only
16/59 (27.1%)
received IPT



IMPLICATIONS FOR PRACTICE

- Strengthen community HIV testing and awareness
- Ensure same-day HIV care linkage
- Routine TB screening for all PLHIV
- Assess eligibility for IPT at every visit
- Improve documentation and follow-up of IPT initiation

SUMMARY

- ✓ N=141 PLHIV
- ✓ Median CD4 = 94 cells/µL (IQR 25-335)
- ✓ 64.8% had CD4<200 cells/µL
- ✓ 58.2% had active TB
- ✓ Only 11.3& had documented IPT
- ✓ Only 27.1% of TB-negative patients received IPT

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NAC26 EP074

Virological Control Among Pregnant Women Living with HIV According to Timing of HIV Diagnosis in Pahang, Malaysia: A Five-Year Retrospective Cohort Study (2021–2025)

Putri Nur Awatiff Ahmad Rantung
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Virological Control Among Pregnant Women Living with HIV According to Timing of HIV Diagnosis in Pahang, Malaysia (2021 – 2025)

KEMENTERIAN KESIHATAN MALAYSIA
JABATAN KESIHATAN NEGERI PAHANG

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INTRODUCTION

- Maternal viral suppression is central to preventing vertical HIV transmission, with transmission risk increasing with maternal viral load; **earlier and sustained ART improves the likelihood of suppression**.[1] Women diagnosed with HIV during pregnancy have a shorter window to achieve suppression compared to women diagnosed before pregnancy.[2]

- **Malaysia achieved WHO validation for EMTCT of HIV and syphilis in 2018**, requiring sustained antenatal screening, timely treatment and ongoing surveillance.[3] However, **state-level evidence on virological control by timing of HIV diagnosis remains limited.**

OBJECTIVES

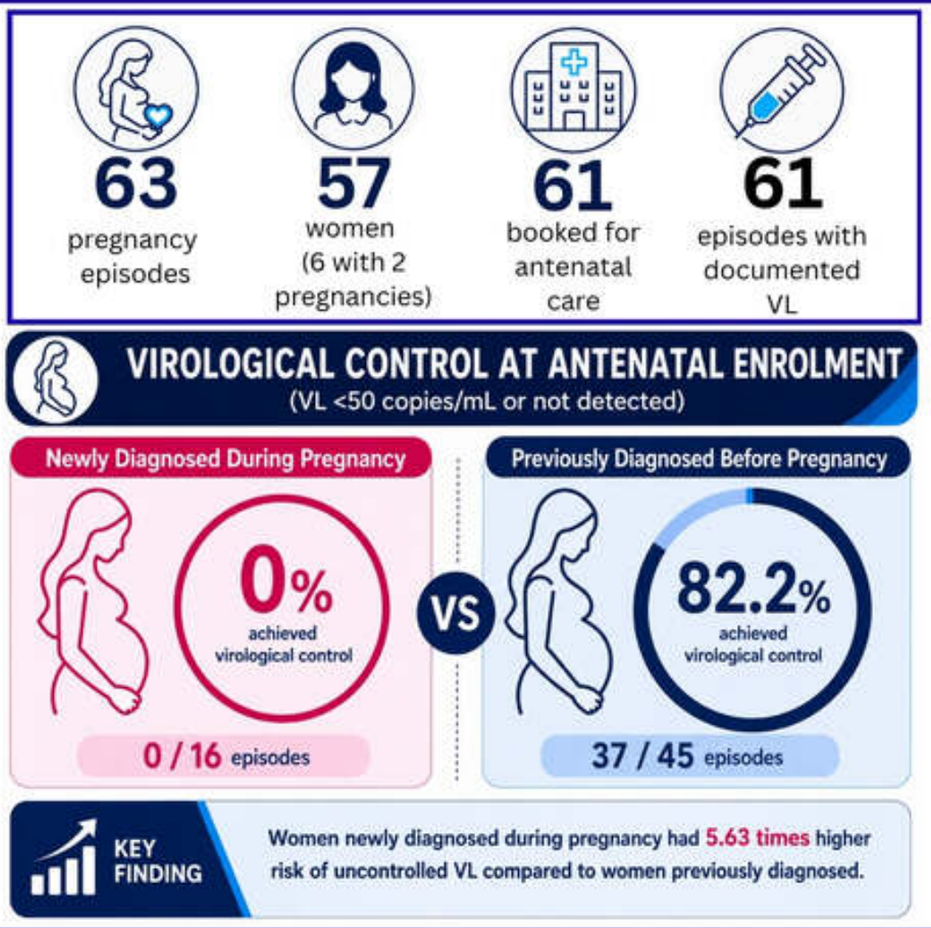
- To **compare virological control at antenatal enrolment between women newly diagnosed with HIV during pregnancy and those diagnosed before pregnancy**, in Pahang, Malaysia (2021–2025).

METHODOLOGY

- A **retrospective cohort study** was conducted using Pahang EMTCT surveillance data from 2021–2025, including **all 63 HIV-positive pregnancy episodes.** Viral load (VL) was assessed at HIV diagnosis confirmation for women newly diagnosed during pregnancy, and at antenatal booking for women previously diagnosed before pregnancy.

- **Virological control was defined as VL <50 copies/mL or "not detected"**; uncontrolled VL was defined as VL ≥50 copies/mL or detectable. Proportions were compared using Fisher's exact test, and relative risk (RR) of uncontrolled VL was calculated with 95% confidence intervals (CI).

RESULTS



DISCUSSION

- Women newly diagnosed during pregnancy had **markedly poorer virological control (0% vs. 82.2%)**, consistent with previous evidence.[2]

- This likely reflects a **shorter opportunity for ART exposure and viral suppression**[1], highlighting a residual vulnerability within the EMTCT programme.

- Findings should be interpreted cautiously given the **small sample, particularly the newly diagnosed group (n=16)**, and the single-state retrospective design, which may limit precision and generalisability.

CONCLUSION

- **Earlier HIV diagnosis provides a critical advantage for virological control.** Women diagnosed during pregnancy require prompt ART initiation and close virological monitoring. Achieving suppression before pregnancy should remain a **key priority for sustaining EMTCT.**

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3. *WHO 2018 Malaysia eliminates mother-to-child transmission of HIV and syphilis*

NAC26 EP076

PrEP awareness, barriers, and facilitators in Malaysia in current landscape of new HIV infections: A review

Kwee Choy Koh
Lawrence Chun-Wei Loy, Sandip Kapse, Alap Gandhi, Raja Iskandar Shah Raja Azwa
IMU University

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GSK · UNIVERSITI MALAYA · IMU UNIVERSITY

PrEP Awareness, Barriers, and Facilitators in Malaysia in the Current Landscape of New HIV Infections: A Review

Lawrence Chun-Wei Loy, Sandip Kapse, Alap Gandhi, Kwee Choy Koh, Iskandar Azwa

1. Introduction & Objective

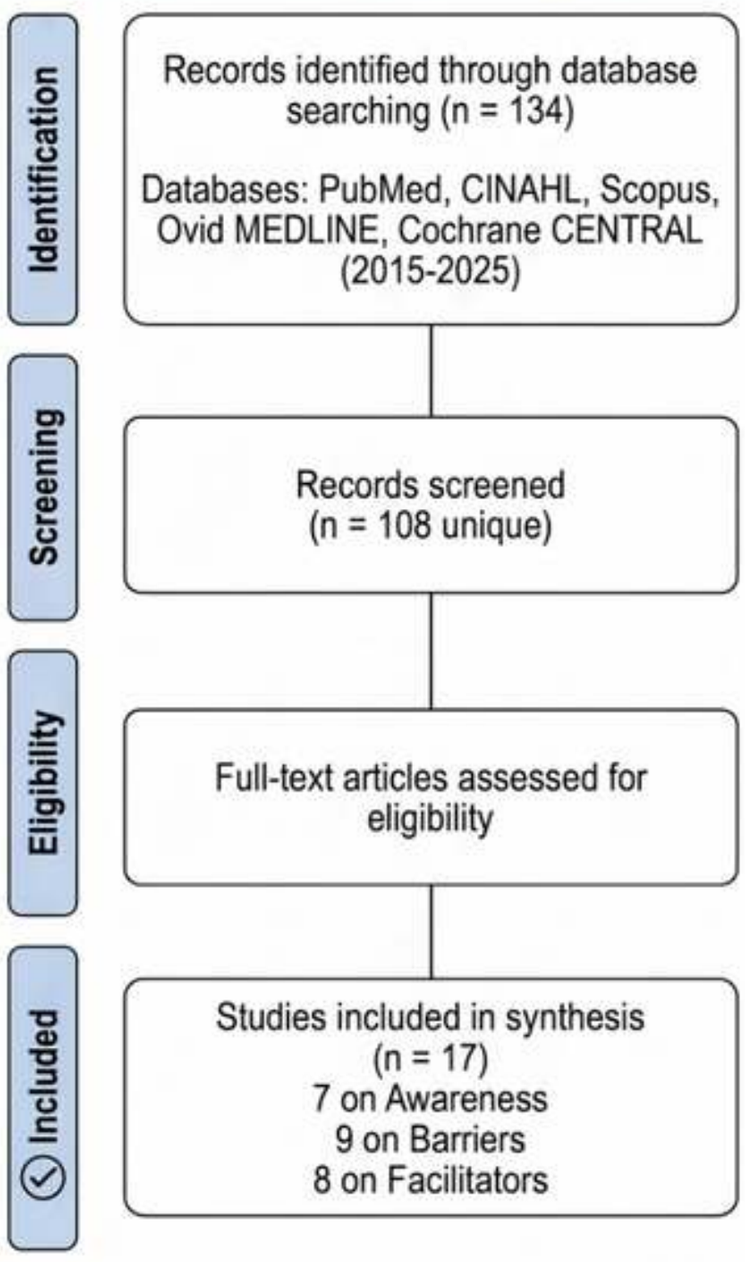
83,937
Individuals Living with HIV in Malaysia
The epidemic has shifted toward sexual transmission, with MSM projected to remain the most affected group through 2000.

The PrEP Paradox: High Awareness vs. Low Uptake

While PrEP is 99% effective at preventing sexual transmission, 41% of Malaysian users discontinue use within 6 months.

Objective of the Review: To synthesize evidence on the awareness, barriers, and facilitators of PrEP among key populations (MSM, TG, FSW) to address research gaps and implementation challenges.

3. Methods (PRISMA Flow Diagram)



4. Results – Awareness & Uptake: Awareness is Rising, but Uptake Lags

MSM	Transgender (TG):	Female Sex Workers (FSW):
Awareness 44% to 80%	**Awareness** 20.2% to 49.4%	**Awareness** 0% to 20.4%
Uptake 11.8% to 18.3%	**Uptake** 8%	**Uptake** 13.4% (past year)

Awareness has increased significantly over time across key populations, yet actual uptake remains stuck between 8% and 18.3%.

5. Key Barriers to Uptake

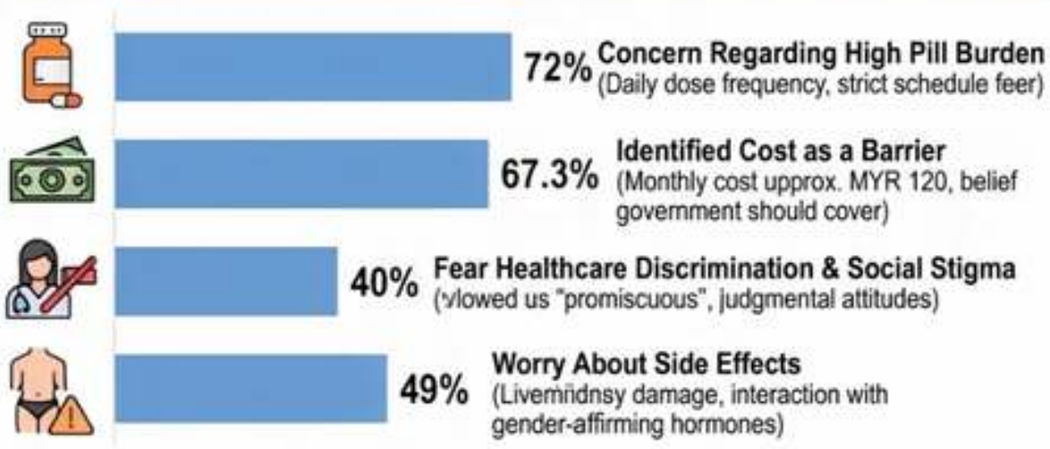


Fig 2. Key Barriers to Uptake (%)

6. Facilitators – Bridging the Gap

Digital Health Interventions: Apps like JomPrEP & HealthMindr provide confidential access, e-consultations, and medication tracking. **92%** of JomPrEP users initiated PrEP via the app.

AI Chatbots & Locators: AI chatbots show **92.1%** accuracy in answering PrEP queries. MyPrEP Locator helps users find SOGIE-friendly providers nationwide.

Long-Acting Injectable PrEP (LAI-PrEP): **86%** of MSM expressed willingness to use injectables like cabotegravir, reducing frequency to once every two months.

Pharmacy-Led Delivery: **98%** Initiation via Pharmacy-Led Delivery. Models show high initiation and retention rates (**72%** at 7 months).

7. Discussion & Conclusion

PREPGOV2023: A Success Story
A government pilot provided free PrEP in 31 clinics. **4,421** individuals enrolled with **99.6%** remaining HIV-negative.

Policy Recommendations:
Shift from a "moralistic" to a "public health" lens: increase funding for public-private partnerships and community-led delivery.

Future Research Directions:
Need for longitudinal data on long-term adherence and increased focus on under-represented groups like PWID and East Malaysian populations.

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NAC26 EP080

Demographic Profiling of PrEP Clients in Kedah

Farah Izza Adenan
Sharifah Saffinas Syed Soffian, Muhammad Lutfi Syafiq Md Yusof
Jabatan Kesihatan Negeri Kedah

PrEP
PROTECT
PREVENT
EMPOWER

DEMOGRAPHIC PROFILING OF PrEP CLIENTS IN KEDAH: IDENTIFYING THE SOCIOECONOMIC REACH

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KEMENTERIAN KESIHATAN MALAYSIA

Ending AIDS 2030

INTRODUCTION

The success of Malaysia's HIV prevention strategy depends on effective engagement of high-risk populations. In Kedah, Pre-Exposure Prophylaxis (PrEP) services have been expanded across primary healthcare clinics to improve access to HIV prevention interventions. However, the socioeconomic diversity of individuals who have successfully reached these services remains unclear.

Understanding the demographic profile of PrEP clients is crucial in determining whether current outreach efforts are equitable and inclusive across different population groups.

OBJECTIVES

1. To describe the demographic profile of PrEP clients in Kedah.
2. To identify the educational and employment background of enrolled clients.
3. To evaluate the socioeconomic reach of PrEP services in Kedah.

METHODOLOGY

Study Design
Descriptive cross-sectional study

Data Source
MyHCC (My HIV Care Cascade) database

Study Population
N = 292 PrEP clients

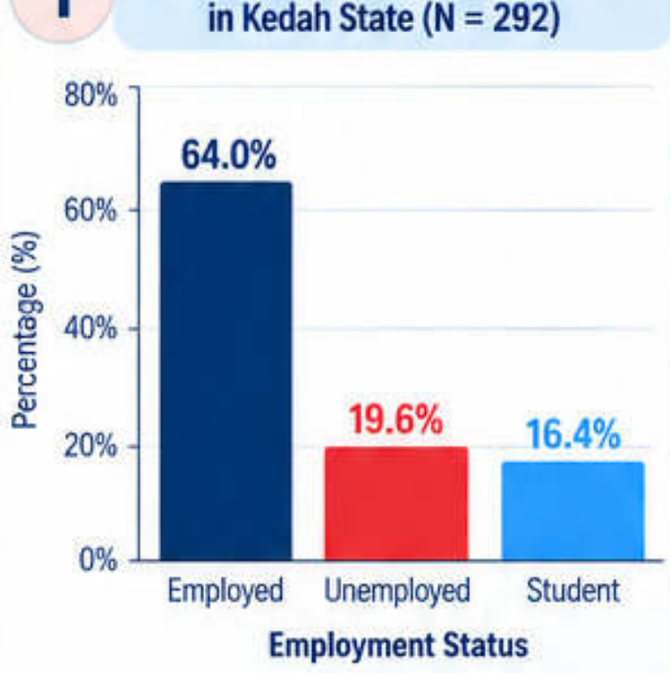
Study Period
2023 – 2025

Variables Analysed
- Employment status
- Education level

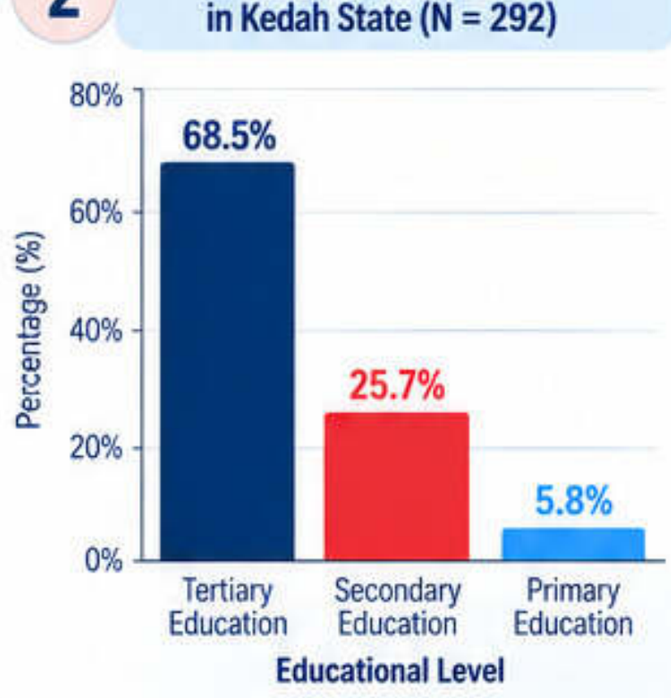
Statistical Analysis
Descriptive statistics

RESULTS

1 Employment Status of PrEP Clients in Kedah State (N = 292)



2 Educational Level of PrEP Clients in Kedah State (N = 292)



DISCUSSION

The majority of PrEP clients in Kedah were employed (64.0%), suggesting higher uptake among economically active individuals. In contrast, lower enrolment was observed among unemployed (19.6%) and students (16.4%).

Tertiary-educated individuals represented the largest proportion of PrEP clients (68.5%), while those with only primary education comprised the smallest proportion (5.8%). This indicates a potential socioeconomic disparity in access to PrEP services.

These findings suggest that current clinic-based and digital outreach strategies may be more effective for educated and economically stable groups. Additional community-driven interventions are required to engage individuals with lower education levels and underserved socioeconomic groups to improve inclusivity and equitable access.

CONCLUSION

While PrEP enrolment in Kedah continues to increase, significant socioeconomic disparities remain evident. Current services are effectively reaching employed and tertiary-educated individuals but may not adequately engage underserved populations. Strengthening community-based outreach and peer-led interventions is essential to improve equitable access to HIV prevention services.

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NAC26 EP081

Towards Elimination of Mother-to-Child Transmission of HIV: A Descriptive Analysis of HIV-Positive Pregnancies in Pahang, Malaysia (2021–2025)

Putri Nur Awatiff Ahmad Rantung
Nazirah Jusoh, Norazah Ab Aziz
Pahang State Health Department

Towards Elimination of Mother-to-Child Transmission of HIV: A Descriptive Analysis of HIV-Positive Pregnancies in Pahang, Malaysia (2021–2025)

KEMENTERIAN KESIHATAN MALAYSIA
JABATAN KESIHATAN NEGERI PAHANG

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[1]Pahang State Health Department, 25582 Kuantan, Pahang, Malaysia

INTRODUCTION

- In 2018, **Malaysia became the first country in the WHO Western Pacific Region** to receive WHO validation for the elimination of mother-to-child transmission (EMTCT) of HIV and syphilis.[1] **WHO defines elimination as an MTCT rate of <2% in non-breastfeeding populations** or <5% in breastfeeding populations.[2]

- Antenatal screening, timely antiretroviral therapy (ART), maternal viral suppression, infant prophylaxis, and safe infant feeding greatly reduce the risk of transmission. However, **infant infections may still occur despite high programme coverage.** Continued programme monitoring is therefore needed to identify remaining gaps and sustain EMTCT in Pahang.[2]

OBJECTIVES

- To **describe the maternal characteristics, programme delivery and infant outcomes** of HIV-positive pregnancy episodes registered in Pahang from 2021 to 2025.

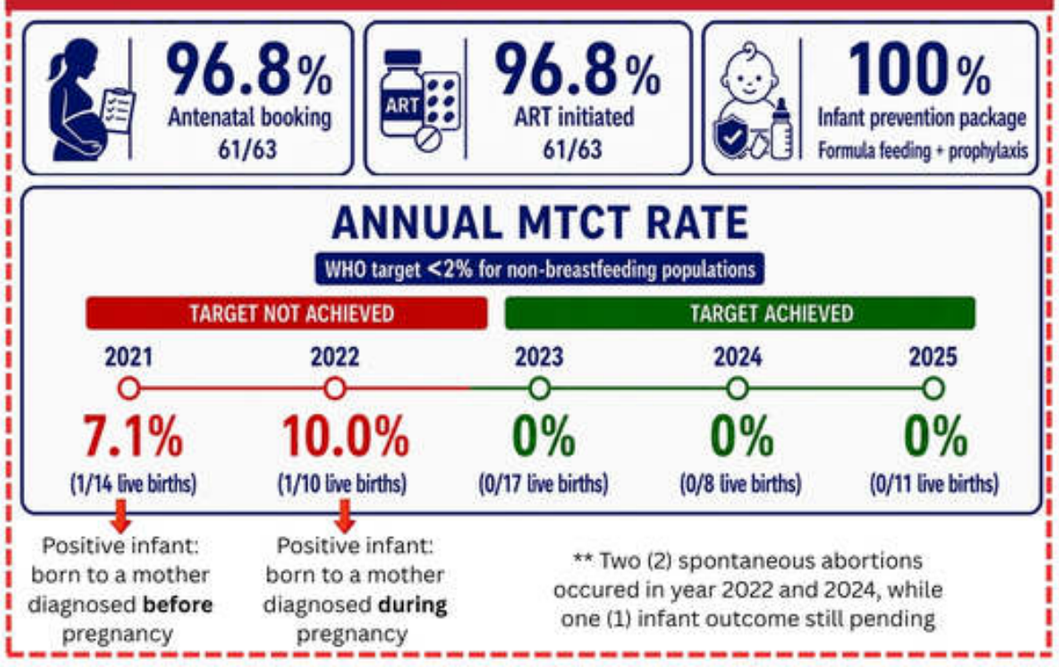
METHODOLOGY

- A **retrospective descriptive review was conducted using Pahang EMTCT programme data from 2021–2025**. All **63 HIV-positive pregnancy episodes involving 57 women were included**.

- Maternal characteristics, programme interventions, pregnancy outcomes and infant HIV status were reviewed. **Infant HIV status was determined through serial PCR testing**. Data were summarised as frequencies and percentages, while annual MTCT rates were calculated by infant birth cohort.

- For the HIV-positive infant outcomes, individual case notes were reviewed to identify potential contributing factors.

RESULTS



DISCUSSION

- Transmission in the 2021 and 2022 birth cohorts shows that **high service coverage alone does not guarantee elimination**.

- Case reviews identified **different possible contributing factors in each transmission**: the first involved a woman with a known prior diagnosis who had suboptimal adherence to ART; the second involved late antenatal booking, new HIV diagnosis, and a high viral load near delivery.

- Both infections were **confirmed through later PCR testing in the following calendar year**, reinforcing the need to complete serial testing despite earlier negative results.[3]

CONCLUSION

- Pahang's EMTCT programme remains strong, **but its remaining vulnerability lies in continuity and quality of care.** Elimination must be secured pregnancy by pregnancy through early risk identification, sustained maternal viral suppression and complete infant follow-up.

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NAC26 EP082

Incidence of Chlamydia trachomatis (CT) and/or Neisseria gonorrhoeae (NG) infections in Malaysia

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NAC26EP082

Incidence of *Chlamydia trachomatis* (CT) and/or *Neisseria gonorrhoeae* (NG) infections in Malaysia

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INTRODUCTION

Chlamydia trachomatis (CT) and *Neisseria gonorrhoeae* (NG) are common bacterial sexually transmitted infections (STI) in Malaysia, but their true burden is underestimated due to reliance on syndromic management and limited aetiological testing [1, 2].

OBJECTIVE

To determine the incidence of CT and/or NG infections in Malaysia and identify associated risk factors using nucleic acid amplification tests (NAAT), specifically the Xpert CT/NG assay.

METHODS

A multicentre study was conducted from May-December 2025 in 33 public health clinics nationwide. Adults aged ≥ 18 years were recruited from symptomatic attendees, partner referrals and key populations at higher risk. Respondents completed an online questionnaire on demographics, sexual behaviours, STI history and provided specimens for CT/NG testing using the Xpert CT/NG assay.

RESULTS

Study population

2,344 respondents participated in the study.

Key demographic characteristics

Age	≤ 24 years (34.6%)
Sex	Male (80.5%)
Ethnicity	Malay (66.4%)
Education	Tertiary (61.6%)
Marital status	Single (82.3%)

Overall incidence

- CT infection: 18.8% (95% CI: 17.0-20.7)
- NG infection: 15.6% (95% CI: 14.0-17.3)
- CT/NG co-infections: 7.0% (95% CI: 5.9-8.3)

Factors associated with CT and/or NG infections

Traditional Clinical Assumptions	Study Reality
Age Demographics Risk is distributed across broader adult populations.	Incidence skews towards youth (≤ 24 years). This group faces higher risk levels: CT infection (28.3%; OR 8.41), NG infection (25.4%; OR 7.28) and CT/NG co-infections (12.8%; OR 4.79) compared to older brackets. This pattern is consistent with global epidemiological evidence showing peak CT and/or NG incidence among adolescents and young adults, driven by a combination of behavioral factors, including higher partner turnover and inconsistent condom use, as well as biological susceptibility [1, 3].
Sexual Orientation Homosexual populations bear the highest primary burden.	Heterosexual respondents demonstrated the highest incidence of CT infection (30.8%; OR 2.93), NG infection (24.9%; OR 2.61) and CT/NG co-infections (12.8%; OR 3.67), highlighting that STI burden extends beyond traditionally recognized high-risk groups and may reflect broader community transmission.

KEY FINDINGS

- CT and/or NG infections remain highly prevalent in Malaysia.
- These findings support the need for routine NAAT-based screening, age-targeted interventions and improved access to confidential STI services.

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NAC26 EP083

Predictors of Advanced HIV Disease Among Newly Diagnosed People in Melaka, Malaysia, 2021–2025

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NAC 2026

PREDICTORS OF ADVANCED HIV DISEASE AMONG NEWLY DIAGNOSED PEOPLE IN MELAKA, 2021–2025

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NAC26EP083 • TRACK B — PUBLIC HEALTH

INTRODUCTION

Advanced HIV disease (AHD) at diagnosis signals missed opportunities for earlier testing and is associated with severe opportunistic infections, higher mortality and greater healthcare use.

43.5% 283 of 651 newly- diagnosed HIV cases presented with AHD

OBJECTIVE

To identify independent predictors of AHD among people newly diagnosed with HIV in Melaka from 2021–2025.

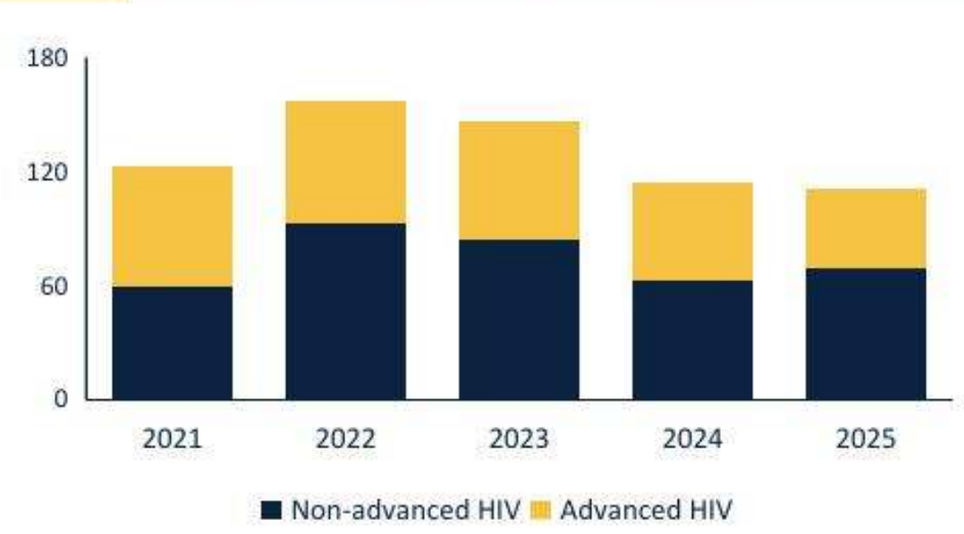
METHODS

- Design: Retrospective cross-sectional analysis of routinely collected surveillance data.
- Population: All eligible newly diagnosed HIV cases registered in Melaka, 1 January 2021–31 December 2025 (N=651).
- Sources: National AIDS Registry linked with Hospital Melaka baseline CD4 records.
- Outcome: AHD defined as baseline CD4 <200 cells/mm³.
- Analysis: Multiple logistic regression; adjusted odds ratios (aOR) with 95% confidence intervals.

MODEL PERFORMANCE

Omnibus p<0.001 • Hosmer–Lemeshow p=0.135
Classification : 73.4% • Nagelkerke R^2: 23.7%

RESULTS: AHD REMAINED COMMON



AHD accounted for 35%–52% of new HIV diagnoses annually.

INDEPENDENT PREDICTORS

Factor	aOR (95% CI)	p-value
Age 25–49 vs <25	2.52 (1.57–4.05)	<0.001
Age ≥50 vs <25	1.79 (0.96–3.33)	0.068
Govt health clinic vs private	0.35 (0.15–0.81)	0.014
Govt hospital vs private	1.44 (0.62–3.37)	0.401
Prison clinic vs private	0.17 (0.06–0.53)	0.002
TB co-infection: yes vs no	2.99 (1.63–5.46)	<0.001

HIGHEST-RISK SIGNAL
TB co-infection nearly tripled the adjusted odds of AHD.

INTERPRETATION

- Working-age adults may experience prolonged undiagnosed infection, low perceived risk or missed testing opportunities.
- TB may be both a consequence of advanced immunosuppression and the clinical event that triggers HIV diagnosis.
- Lower odds in government health and prison clinics suggest structured routine and risk-based testing can identify HIV earlier.

PUBLIC HEALTH IMPLICATIONS

- Normalize risk-based testing for sexually active adults aged 25–49—not only visibly recognized key populations.
- Strengthen bidirectional TB/HIV screening and fast-track CD4 assessment, opportunistic-infection screening and ART.
- Standardize earlier-detection pathways in primary care and prisons.

CONCLUSION

- **Nearly half of new HIV diagnoses presented with AHD.**
- **Earlier testing among adults aged 25–49 and integrated TB/HIV services are the most actionable priorities.**
- **Standardized pathways are needed across all facility types.**

Data: National AIDS Registry & Hospital Melaka CD4 line list | AHD: baseline CD4 <200 cells/mm³ | Selected references: WHO (2024); Wong et al. (2023); Ahmad et al. (2024).

NAC26 EP084

Predictors of Unsuccessful TB Treatment among TB/HIV CoInfected Patients in Peninsular Malaysia: A 10Year Review

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EP084

PREDICTORS OF UNSUCCESSFUL TB TREATMENT AMONG TB/HIV CO-INFECTED PATIENTS IN PENINSULAR MALAYSIA: A 10-YEAR REVIEW

NMRR ID: 25-04238-LTE (IIR)

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1) INTRODUCTION

- Tuberculosis (TB) remains a leading cause of morbidity and mortality among PLHIV. Co-infection complicates treatment outcomes due to immunosuppression, drug interactions, and comorbidities.
- Understanding predictors of unsuccessful treatment is essential to strengthen TB/HIV control strategies in Malaysia.

2) OBJECTIVE

- To determine factors associated with unsuccessful TB treatment outcomes among TB/HIV co-infected patients in Peninsular Malaysia from 2015 to 2024.

3) MATERIAL AND METHODS

ITEM	DESCRIPTION
Study design	Cross-sectional study using data from Jan 2015 - Dec 2024
Sample Population	All TB/HIV co-infected patients in Peninsular Malaysia
Sample Size	Convenience sampling
Study Site	Section of TB and Leprosy, Disease Control Division, Ministry of Health (MOH)
Study Procedure	Review the secondary data in MyTB online system
Inclusion Criteria	Patients aged ≥18 years, Malaysian citizen with documented TB treatment outcomes
Exclusion Criteria	Any cases transfer out, change of diagnosis and still on treatment
Data Analysis	Multiple logistic regression using SPSS V25.0
Ethical Approval	Medical Research Ethics Committee (MREC)
Definition by MOH	Treatment success = cured + completed treatment Treatment unsuccess = failure + death + default

4) RESULTS

Table 1: Factors associated with unsuccessful of TB treatment among subjects using multiple logistic regression (n = 4,240)

Factors	Multiple logistic regression			
	b	Adj OR (95% CI)	Wald statistic	*P*-value
Age (Years)*	0.01	1.012 (1.00, 1.02)	4.94	**0.026**
Treatment Duration (Days)*	-1.03	0.36 (0.34, 0.38)	1028.1	**<0.001**
DOT by Healthcare	0			
DOT by Non-Healthcare	-0.36	0.70 (0.51, 0.96)	4.8	**0.029**
None	0.72	2.06 (1.11, 3.81)	5.2	**0.022**
Case Category (Relapse)	0.46	1.59 (1.17, 2.15)	8.9	**0.003**
Comorbid (Yes)	-0.93	0.40 (0.23, 0.69)	10.6	**0.001**

Forward stepwise likelihood ratio multiple logistic regression method was applied. Multicollinearity and interaction terms were checked and not detected. Hosmer–Lemeshow GOF test (*P*<0.001), classification table (overall correctly classified percentage = 96.1%), and Area under the ROC curve (96.7%) were applied to check the model fitness.



5) DISCUSSIONS

- The findings highlight **older age, relapse, lack of DOT supervision,** and **comorbidities** significantly increase the risk of unsuccessful TB treatment.
- These results consistent with global evidence; immunosuppression, treatment fatigue, and poor adherence contribute to poor outcomes in TB/HIV populations.
- The protective effect of **longer treatment duration** and **healthcare-supervised DOT** underscores the importance of structured, patient-centered care models.
- The role of **non-healthcare DOT supervision** showing reduced odds of unsuccessful treatment suggests that community-based support may complement formal healthcare systems, but requires careful monitoring and training.

6) STRENGTH AND LIMITATION

- **Strengths:**
  - **Large dataset**: 10-year review with over 4,000 TB/HIV cases provides robust statistical power.
  - **National coverage**: Data from Peninsular Malaysia enhances generalizability to similar settings.
- **Limitations:**
  - **Secondary data**: Reliance on MyTB system records may introduce reporting bias or incomplete data.
  - **Unmeasured confounders**: Factors such as socioeconomic status, ART adherence, or nutritional status were not captured.
  - **Cross-sectional design**: Limits causal inference; associations cannot confirm temporal relationships.

7) CONCLUSION AND RECOMMENDATION

- **Conclusion:**
  - Older age, relapse, lack of DOT supervision, and comorbidities increase the risk of unsuccessful TB treatment among TB/HIV co-infected patients, while longer treatment duration and healthcare-supervised DOT are protective.
- **Recommendations:**
  - Strengthening DOT implementation and integrating comorbidity management are critical to improving treatment success in Malaysia.

8) ACKNOWLEDGEMENT

- The author wish to thank the TB/Leprosy Sector and Director General of Health, Malaysia for his kind permission to present this poster

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NAC26 EP087

The Impact of Case Category on the Duration of Treatment: An ANCOVA Approach Controlling for Age

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EP087

THE IMPACT OF CASE CATEGORY ON THE DURATION OF TREATMENT: AN ANCOVA APPROACH CONTROLLING FOR AGE

NMRR ID: 25-04238-LTE (IIR)

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1) INTRODUCTION

- Tuberculosis (TB) treatment duration among TB-HIV co-infected patients remains a critical determinant of clinical outcomes and programmatic success.
- Identifying factors that influence treatment length is essential for optimizing care and guiding evidence-based interventions.
- Case category (new versus relapse) and patient age are often considered potential predictors; however, their independent effects require careful statistical adjustment.

2) OBJECTIVE

- To confirm the effect of case category on treatment duration among TB-HIV co-infected patients in Peninsular Malaysia (2015 - 2024) after controlling for age.

3) MATERIAL AND METHODS

ITEM	DESCRIPTION
Study design	Cross-sectional study
Sample Population	TB/HIV co-infected patients in Peninsular Malaysia
Sample Size	Convenience sampling
Study Site	Section of TB and Leprosy, Disease Control Division, Ministry of Health (MOH)
Study Procedure	❑ Review the secondary data from Jan 2015 - Dec 2024 ❑ Data analyzed using the ANCOVA model ✓ Independent variable: Case category ✓ Dependent variable: duration of treatment ✓ Covariate: age
Inclusion Criteria	Patients aged ≥18 years, Malaysian citizen with documented TB treatment outcomes
Exclusion Criteria	Any cases transfer out, change of diagnosis and still on treatment
Data Analysis	ANCOVA analysis using IBM SPSS V25.0
Ethical Approval	Medical Research Ethics Committee (MREC)

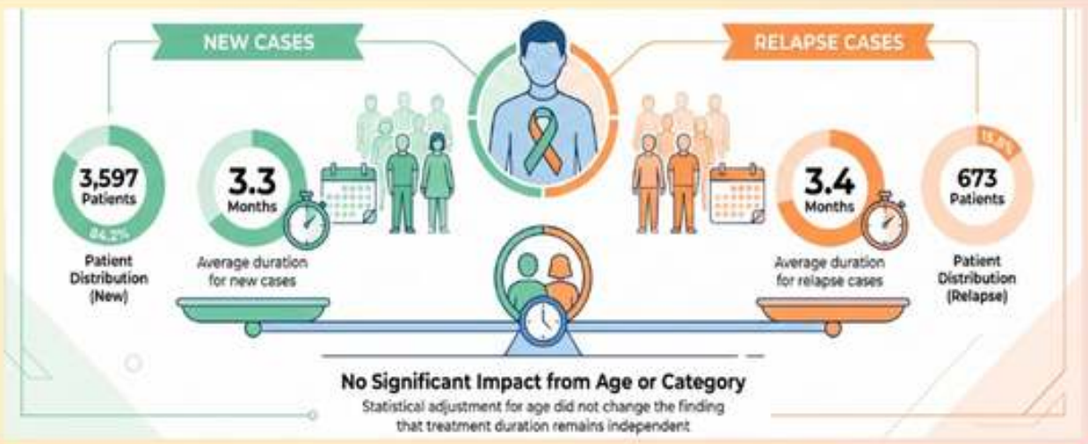
4) RESULTS

- A total of 4,270 TB-HIV co-infected patients
- Age: 18 to 85 years (mean ± SD: 41.3 ± 10.9 years)
- Treatment duration: 0 to 22 months (mean ± SD: 3.3 ± 3.4 months)
- New cases: 3,597 (84.2%), relapse cases: 673 (15.8%)
- Mean treatment duration was 3.3 months for new cases and 3.4 months for relapse cases

Table 1: Comparison of case category between new and relapse with and without adjustment of age (n = 4,270)

TB Anatomy	TB Anatomy	Mean	Mean Difference (95% CI)	t-stat / F-Stat	*P*-value
Without adjustment	New cases (n = 3,597)	[a]3.3 (3.4)	-0.1 (-0.4, 0.2)	[b]-0.6	[c]0.552
	Relapse cases (n = 673)	[a]3.4 (3.2)			
After controlling for age	New cases (n = 3,597)	3.3 (3.2, 3.4)	[d]-0.13 (-0.4, 0.2)	[e]0.8	[f]0.360
	Relapse cases (n = 673)	3.4 (3.2, 3.7)			

[a] Mean (Standard Deviation) [b] t-stat [c] Independent T-test applied
[d] Adjusted mean Difference (95% CI) Bonferroni adjustment applied [e] F-stat
[f] ANCOVA applied (adjusted for age)



5) DISCUSSIONS

- This study found **no significant difference** in treatment duration **between new and relapse TB cases**, even **after adjusting for age**. These findings **suggest** that **case category and age are not primary determinants of treatment duration** in this population.
- The results contrast with some global studies where relapse cases often require longer treatment, highlighting possible differences in programmatic practices or patient management in Malaysia.
- The consistency across adjusted and unadjusted analyses indicates that other clinical, behavioural, or programmatic factors such as adherence, comorbidities, or ART status may play a more influential role in determining treatment duration.
- This underscores need to broaden research beyond case category and age to capture the multifactorial nature of TB/HIV treatment outcomes.

6) STRENGTH AND LIMITATION

- **Strengths:**
  - Large sample size (4,270 TB/HIV patients) across a 10-year period.
  - Use of national surveillance data (MyTB system) ensures representativeness.
  - Application of ANCOVA allows adjustment for age, improving analytical rigor.
- **Limitations:**
  - Secondary data may lack detail on adherence, ART status, or socioeconomic factors.
  - Cross-sectional design limits causal inference.
  - Treatment duration measured in months may not capture nuances of regimen changes or interruptions.

7) CONCLUSION AND RECOMMENDATION

- **Conclusion:**
  - Case category and age did not significantly influence treatment duration among TB-HIV co-infected patients.
- **Recommendations:**
  - These findings suggest that treatment duration is largely independent of case category, underscoring the importance of exploring other clinical and programmatic factors to strengthen TB/HIV care and ensure that no patient is left behind.

8) ACKNOWLEDGEMENT

The author wish to thank the TB/Leprosy Sector and Director General of Health, Malaysia for his kind permission to present this poster

9) REFERENCES

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NAC26 EP090

Determinants of HIV Care Outcomes in the Context of TB Co-Infection in East-Coast Malaysia: An Epidemiological Analysis

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EP090

DETERMINANTS OF HIV CARE OUTCOMES IN THE CONTEXT OF TB CO-INFECTION IN EAST-COAST MALAYSIA: AN EPIDEMIOLOGICAL ANALYSIS

NMRR ID: 25-04238-LTE (IIR)

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INTRODUCTION

- Human Immunodeficiency Virus (HIV) remains a critical global health challenge, with co-infections substantially undermining treatment success and long-term survival.
- Tuberculosis (TB), the leading opportunistic infection among PLHIV, continues to drive morbidity and mortality, particularly in resource-limited settings.
- In Malaysia's East-Coast, TB-HIV co-infection persists as a major obstacle to achieving optimal HIV care outcomes despite sustained public health interventions.

OBJECTIVE

- This study aims to determine the proportion and key determinants of treatment outcomes (success, default, death) among HIV co-infected with TB in East-Coast Malaysia (2016–2020), using an epidemiological modelling approach

MATERIAL AND METHODS

ITEM	DESCRIPTION
Study design	Retrospective cohort study using data from TBIS system between Jan 2016 - Dec 2020
Sample Population	All TB/HIV cases registered in East-Coast Malaysia
Sample Size	Convenience sampling
Study Site	TB and Leprosy Sector at Jabatan Kesihatan Negeri Kelantan, Terengganu, and Pahang
Study Procedure	Review the secondary data in TBIS system
Inclusion Criteria	Patients aged ≥18 years, Malaysian citizen with documented TB treatment outcomes
Exclusion Criteria	Any cases transfer out, change of diagnosis and still on treatment
Data Analysis	Multinomial logistic regression was performed using STATA V14
Ethical Approval	Medical Research Ethics Committee (MREC)
Definition by MOH	Treatment success = cured + completed treatment Treatment unsuccess = failure + death + default

RESULTS

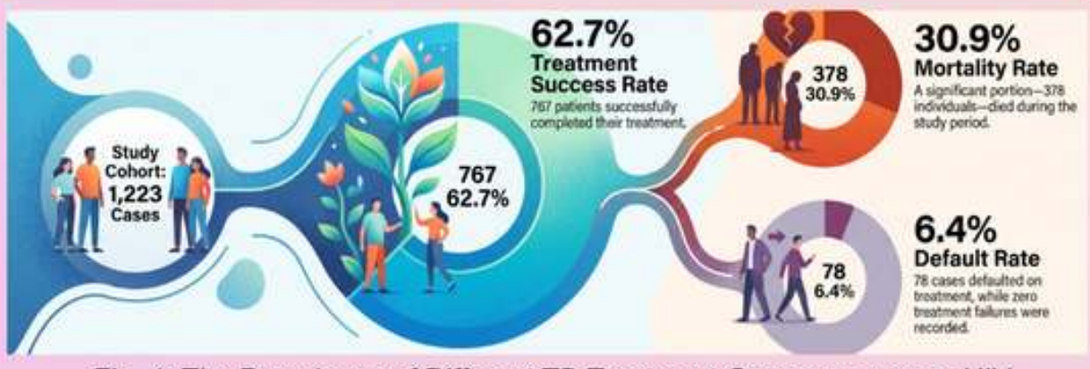


Fig. 1; The Prevalence of Different TB Treatment Outcomes among HIV co-infected with TB in East Coast Malaysia, 2016 - 2020 (n = 1,223)

	Variable	ARRR	
Completed Outcomes	**Duration of treatment**	**1.08**	**8% Increases completion odds**
	Underlying DM	0.2	
	Occupation - Gov staff	2.44	
	Minima CXR	**0.16**	**84% lower chance**
	Moderate advance CXR	**0.1**	**90% lower chance**
	Far advance CXR	0.05	
	Age	0.95	
Defaulted Outcomes	**Duration of treatment**	**0.64**	**36% Decreases default risk**
	Residency in Rural	0.43	
	Not join DOT	45.96	
	Recurrent	2.41	
	After failure/ default	5.38	
	Minima CXR	**0.21**	**79% lower chance**
	Moderate advance CXR	**0.16**	**86% lower chance**
	Far advance CXR	0.07	
Death Outcomes	**Duration of treatment**	**0.41**	**59% Decreases death risk**
	Diabetes mellitus	0.34	
	No DOT	29.41	
	Others Occupation	0.53	
	Minima CXR	**0.25**	**75% lower chance**
	Moderate advance CXR	**0.19**	**81% lower chance**

Mapping the Determinants of Adverse Outcomes

	Associated with Default	Associated with Death
Age	●	
Residency	●	
Employment Status		●
Treatment Delay		●
Treatment Duration	●	●
Smoking Status	●	●
DOT (Directly Observed Therapy)	●	●
TB Cases Category	●	●

The Consistent Predictors: Variables driving both default and death across the entire cohort.

Fig. 2; Associated Factors with all Treatment Outcomes

DISCUSSIONS

- **Multifactorial determinants**: Treatment duration, smoking status, DOT adherence, and TB case category consistently influenced outcomes, showing that both clinical and behavioural factors shape survival.
- **High mortality burden**: Nearly one-third of patients died, emphasizing the urgent need for earlier treatment initiation and stronger patient support systems.
- **Integrated approach needed**: Improving outcomes requires not only medical interventions but also addressing socioeconomic vulnerabilities and lifestyle risks such as smoking.

STRENGTH AND LIMITATION

- **Strengths:**
  - The use of multinomial logistic regression allowed comprehensive evaluation of multiple outcomes, and the findings highlight consistent predictors that can directly inform public health strategies.
- **Limitations:**
  - **Missing Data:** Some variables (e.g., treatment regimen, notification source, HAART treatment, marital status, income) had substantial gaps, potentially causing bias.
  - **Data Suitability Issues:** Some datasets required complex adjustments for statistical analysis.

CONCLUSION AND RECOMMENDATION

- **Conclusion:**
  - This study highlights the multifactorial determinants of TB treatment outcomes among HIV co-infected with TB in East-Coast Malaysia.
  - Strengthening DOT programs, addressing smoking cessation, reducing treatment delays, and tailoring interventions to vulnerable groups are critical to improving survival.
  - These findings provide actionable insights for integrated HIV/TB strategies and policy development.
- **Recommendations:**
  - Strengthening DOT programs, reducing treatment delays, and integrating smoking cessation support are crucial to improve survival among HIV co-infected with TB .
  - Tailored interventions for vulnerable groups such as unemployed, rural, and older patients should be prioritized, while policies must align HIV and TB programs for holistic care delivery.

ACKNOWLEDGEMENT

The author wish to thank the TB/Leprosy Sector and Director General of Health, Malaysia for his kind permission to present this poster

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Assessment of Psychological Health during COVID-19 Pre-Endemic Phase and Its Influence on Adherence to Highly Active Antiretroviral Therapy (HAART) among People Living with HIV (PLHIV)

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5TH NATIONAL AIDS CONFERENCE 2026
NAC26 EP093
TRACK B · PUBLIC HEALTH

Assessment of Psychological Health during COVID-19 Pre-Endemic Phase and Its Influence on Adherence to Highly Active Antiretroviral Therapy (HAART) among People Living with HIV (PLHIV)

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59
patients

25.4%
with psychological stress

83.1%
good HAART adherence

BACKGROUND

Apart from physiological impact, COVID-19 impairs psychological health of people living with HIV (PLHIV). This can cause non-adherence towards highly active antiretroviral therapy (HAART), which will lead to unsuccessful HAART treatment, progression to AIDS and death. However, the study regarding this issue is still limited, especially on PLHIV in Malaysia population.

METHODS

A cross-sectional survey study was conducted in two Infectious Disease (ID) clinic of hospital in Pahang state. PLHIV who met inclusion and exclusion criteria were conveniently recruited in this study. Data was collected between 1 April 2022 until 31 July 2022. Psychological health was assessed by using Impact of Event Scale-Revised (IES-R Malay version) and HAART adherence level was assessed by using The Malaysia Medication Adherence Assessment Tool (MyMAAT). Psychological health and HAART adherence level were presented as percentage distribution and Spearman's rank correlation test was utilised to analyse correlation between psychological health and HAART adherence level.

RESULTS

Total of 59 patients were participated, mean age 38.02 (±11.02) years old. One-fourth (n=15, 25.4%) of the patients had psychological stress (median (IQR) score of 6 (1 to 14.5)) and more than one-third (n=21, 35.6%) had behavioural stress ((median (IQR) score of 4 (0 to 10)) during COVID-19 in Malaysia. For HAART adherence, majority of patients had good adherence towards HAART (n=49, 83.1%). A significant fair negative correlation was found between psychological and behaviour domain score with HAART adherence score ($r= -0.359$, $p < 0.05$ and $r=- 0.344$, $p < 0.05$ respectively).

CONCLUSION

Impaired psychological health was still reported among PLHIV even though country had entered 'transition to endemic' phase. Study found poor psychological health will reduce HAART adherence level. However, further investigations are required to validate this finding as this study had small sample size.

NAC26 EP097

Divergent Drivers of Menopausal Symptom Severity in Women with and without HIV

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Divergent Drivers of Menopausal Symptom Severity in Women with and without HIV

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INTRODUCTION

As the life expectancy of people living with HIV increases[1], women with HIV (WWH) are ageing into menopause. While western data on HIV and menopause exists, the clinical experience in the Asia-Pacific region remains largely unexplored[2].

OBJECTIVES

- To compare the burden of menopausal symptoms between women with and without HIV (WWoH).
- To explore independent factors associated with symptom severity.

METHODOLOGY

Setting: Universiti Malaya Medical Centre, Malaysia
September 2024 - October 2025
Design: Comparative cross-sectional survey
Eligibility:
Women aged between 35 - 60 years.
Exclusion criteria:
- Surgical menopause
- Pregnancy or breastfeeding in the past 12 months
- Chemotherapy / radiotherapy in the past 6 months

Data collection
- WWH were recruited from Infectious Diseases Clinic; WWoH were recruited from Primary Care Clinic
- Self-reported menopausal stages based on STRAW+10 criteria[3]:
  - Pre-menopause: Regular cycles
  - Perimenopause: Irregular cycles (≥2 skipped or ≥60-day gaps)
  - Menopause: No menstrusation ≥12 months
- 11-item Menopause Rating Scale (MRS)[4]
  - Evaluates somatic, psychological, urogenital via 5-point Likert Scale

Data analysis
Descriptive and comparative statistics using SPSS v31.
Multivariable linear regression:
Adjusted for sociodemographic, lifestyle, and clinical confounders.

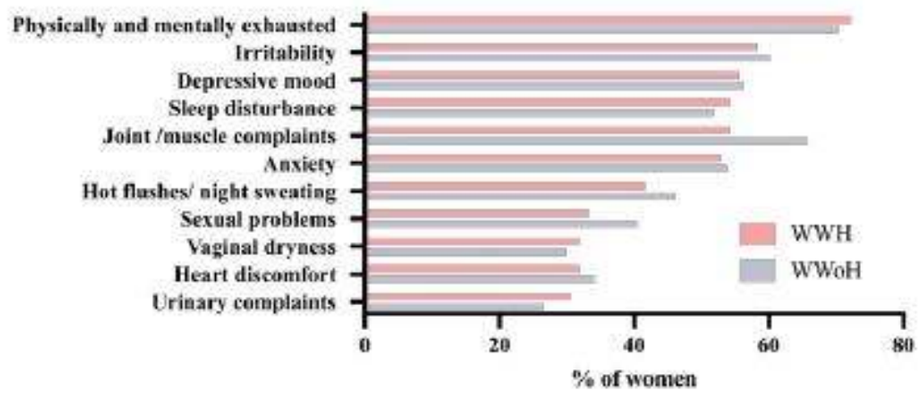
RESULTS

Characteristics	WWH (n=72)	WWoH (n=158)
Age (years), median [IQR]	46.5 [42.8,52.3]	48.0 [43.0,54.0]
Ethnicity, n (%)*		
Malay	18 (25.0)	52 (32.9)
Chinese	35 (48.6)	79 (50.0)
Indian	11 (15.3)	23 (14.6)
Other	8 (11.1)	4 (2.5)
Current marital status, n (%)*		
Never married	10 (13.9)	24 (15.2)
Married/ Partnered	44 (61.1)	117 (74.0)
Separated/ Widowed	18 (25.0)	17 (10.8)
Highest education level, n (%)*		
Primary school	7 (9.7)	6 (3.8)
High school	38 (52.8)	37 (23.4)
College/ vocational training	8 (11.1)	35 (22.2)
University	19 (26.4)	80 (50.6)
Household income, n (%)[a]*		
B40 (Low)	48 (66.6)	77 (48.7)
M40 (Middle)	21 (29.2)	56 (35.4)
T20 (High)	3 (4.2)	25 (15.8)
Smoking status, n (%)*		
Never	62 (86.1)	150 (94.9)
Ex-smoker	5 (6.9)	6 (3.8)
Active smoker	5 (6.9)	2 (1.3)
Alcohol intake, n(%)*		
Never	42 (58.3)	100 (63.3)
Rarely (once a month or less)	17 (23.6)	48 (30.4)
Occasionally (more than once a month)	13 (18.1)	10 (6.3)
Burden of chronic disease, n (%)[b]		
0 conditions	26 (36.1)	65 (41.1)
1 and 2 conditions	40 (55.6)	72 (45.6)
3 and more conditions	6 (8.3)	21 (13.3)
HIV-related factors		
Years since HIV diagnosis, median [IQR]	17.2 [10.5, 21.3]	NA
Nadir CD4 count (cells/μL), median [IQR]	153 [27.0, 305.3]	NA
Latest CD4 count (cells/μL), median [IQR]	600 [447.5,854.3]	NA
Years receiving ART, median [IQR]	15.4 [10.0, 19.3]	NA
Viral suppression status (<20 copies/mL)	49 (68.1)	NA
Menopausal status, n (%)[c]		
Pre-menopause	34 (47.2)	81 (51.3)
Perimenopause	18 (25.0)	29 (18.4)
Post-menopause	20 (27.8)	48 (30.4)

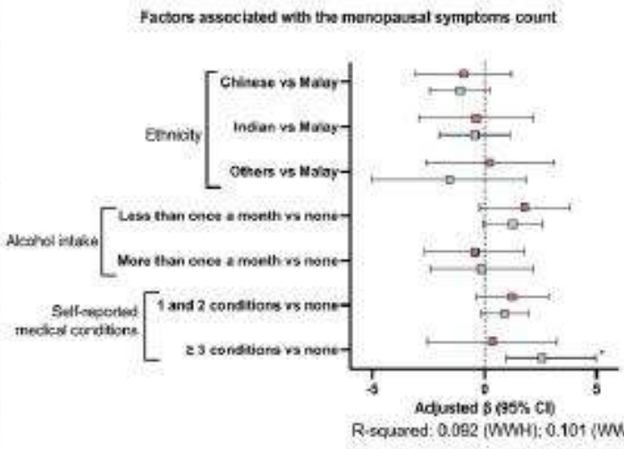
Abbreviations: IQR, interquartile range; WWH, women with HIV; WWoH, women without HIV.
** p<0.05. [a]Income categories defined by Malaysian national standards: B40 (Bottom 40%) <RM 4,850 (~<USD 1,020); M40 (Middle 40%) RM 4,851- 10,959 (USD 1,021-2,300); T20 (Top 20%) ≥RM 10,960 (≥USD 2,301). [b]Medical comorbidities include self-reported physician-diagnosed chronic conditions other than HIV. [c]Menopause status categorized according to STRAW+10 criteria.*

RESULTS

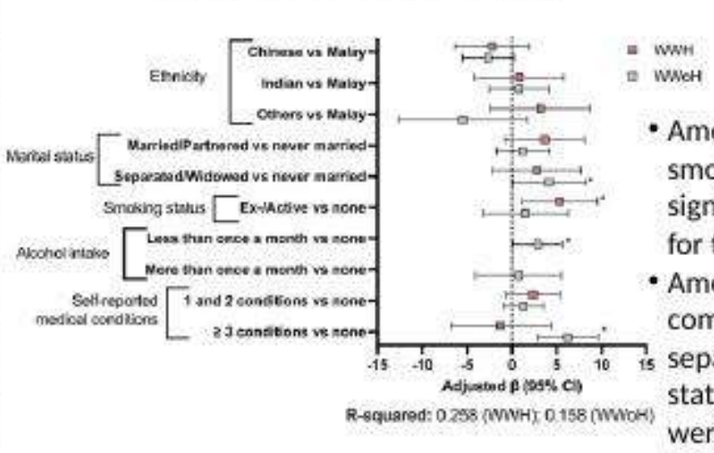
Prevalence of menopausal symptoms in WWH vs WWoH



- Median Total MRS score was similar in both groups(7 vs 7; p=0.892).
- Physical and mental exhaustion being the most prevalent symptom reported by both groups (>70%).



Among WWoH, ≥3 comorbidities was strongly associated with symptom count.



- Among WWH, ex-/active smoking was the only significant adjusted factor for total MRS severity.
- Among WWoH, ≥3 comorbidities; separated /widowed status and alcohol intake were associated with severity.

DISCUSSION

- Total menopausal symptom burden was comparable between WWH and WWoH, contrasting with several Western studies reporting higher symptom severity in WWH[5,6].
- Despite similar overall burden, symptom profiles differed: WWH more often reported psychological symptoms (irritability, low mood), while WWoH more often reported somatic complaints (joint/muscle pain).
- Among WWH, ex- or active smoking was associated with higher total MRS score. Smoking has been linked to earlier menopause and greater menopausal symptoms in previous studies[7,8].

CONCLUSION

Menopausal symptom burden is similar between women with and without HIV, but the factors driving symptom severity differ by HIV status. These findings support earlier menopause assessment and tailored, person-centered menopausal care within HIV services in Malaysia.

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NAC26 EP109

Descriptive Epidemiology of Notified Acquired Syphilis in Kulim District, Kedah, January–August 2026

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Pejabat Kesihatan Daerah Kulim

5TH NATIONAL AIDS CONFERENCE 2026
NAC26 EP109
TRACK B · PUBLIC HEALTH

Descriptive Epidemiology of Notified Acquired Syphilis in Kulim District, Kedah, January–August 2026

Fadli Zulfaiz
Pejabat Kesihatan Daerah Kulim

39
notifications

28
registered (71.8%)

96.4%
detected passively

■ INTRODUCTION

Syphilis notifications are rising in Malaysia, facilitating HIV transmission and indicating populations at risk. District-level data regarding diagnosis and demographics remains limited.

■ METHODOLOGY

A cross-sectional descriptive analysis of syphilis notifications extracted from the electronic notification system (eNotis) for Kulim District Health Office (epidemiological weeks 1–32, 2026). Records were linked to HIV/AIDS notifications via identification numbers.

■ RESULTS

Of 39 notifications, 28 (71.8%) were registered; eight were cancelled. All 28 were laboratory-confirmed, locally acquired syphilis. The majority (75.0%) were male, with a median age of 31 years (IQR 27.5–43.3). Most were Malaysian citizens (89.3%; Malay 56%, Indian 28%, Chinese 16%). Detection was predominantly passive (96.4%), with only one case detected via FOMEMA screening. Government health clinics notified 16 cases (57.1%), while 32.1% originated outside the district. Risk factors were documented in 21 cases (75.0%), including 7 reporting male-to-male or bisexual exposure. Five cases (17.9%) involved concurrent HIV/AIDS notification, all in males aged 24–35. The median diagnosis-to-notification interval was 0 days.

■ CONCLUSIONS

Syphilis in Kulim predominantly affects young to middle-aged men and is detected almost exclusively through passive screening, with significant HIV co-infection. Every syphilis diagnosis must trigger routine HIV testing, partner notification, and PrEP assessment.

NAC26 EP110

Situational Analysis of HIV Infection Trends in Hulu Selangor District, Selangor, Malaysia (2020–2025)

Nur Nazilahani Jailani
Mohd Safwan Mohd Noor
Pejabat Kesihatan Daerah Hulu Selangor

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PEJABAT KESIHATAN DAERAH HULU SELANGOR

HIV TRENDS IN HULU SELANGOR DISTRICT, SELANGOR, MALAYSIA (2020–2025)

Nur Nazilahani Jailani, Mohd Safwan Mohd Noor
Pejabat Kesihatan Daerah Hulu Selangor, Jabatan Kesihatan Negeri Selangor

INTRODUCTION

HIV/AIDS remains a major global public health burden. UNAIDS Global AIDS Monitoring 2025 estimates 85,033 PLHIV in Malaysia; only 66% know their status, 95% of diagnosed are on ART, and 88% are virally suppressed [1]. Malaysia's national notification rate has declined 71.4% from 29/100,000 (2002) to 8.3/100,000 (2025), largely attributed to harm reduction (introduced 2005) and PrEP (introduced 2023). Transmission nationally has shifted from injecting drug use to sexual contact – 65% homosexual/bisexual transmission, 32.3% heterosexual transmission (2025) [1].

OBJECTIVES

To analyse HIV incidence trends in Hulu Selangor district, 2020–2025, and benchmark district-level notification rates against Malaysia's national rate.

METHODOLOGY

A retrospective descriptive analysis of annual HIV case notifications and mid-year population estimates for Hulu Selangor (2020–2025) was conducted. Incidence rates per 100,000 population were calculated and compared against national surveillance data (e-Notifikasi, My HIV Care Cascade) for the corresponding period.

DISCUSSION

Although Hulu Selangor contributes a comparatively small share of Selangor State's overall HIV caseload, its per-capita incidence consistently outpaced the national average, with the gap reaching statistical significance in 2022, 2024, and 2025 — suggesting a sustained, disproportionate local burden rather than a single anomalous outbreak year. The demographics reflected district-wide patterns in 2025, characterized by a marked male predominance (91%) and the highest incidence among individuals aged 20–39. Sexual transmission now accounts for 94% of new infections, closely mirroring the national rate of 96% [1]. Nationally, homosexual/bisexual contact has overtaken heterosexual transmission [1] — a shift further corroborated by bio-behavioural surveillance in Sarawak, which found an HIV prevalence of 9.5% among MSM and 10.1% among transgender women, alongside a concerning syphilis co-prevalence (12% among MSM) [2]. Behavioural research among Malaysian MSM highlights persistent barriers to engaging with prevention services: nearly one-third report never having tested for HIV, while stigma and cost remain major deterrents to PrEP uptake (private-clinic PrEP costs RM150–250/month) [3]. Consequently, self-testing delivery models tailored to MSM preferences have been proposed to close this gap [3]. The 2022 incidence peak may partly reflect a rebound in testing activity following COVID-19-related service disruptions in 2020–2021; the subsequent 2023 decline and 2024–2025 resurgence warrant closer monitoring to distinguish genuine transmission changes from testing-volume artefacts.

RESULTS

Incidence rates ranged 8.2–18.7/100,000 (2020–2025), peaking sharply in 2022 – over double the national rate. Rates exceeded Malaysia's national rate (8.3/100,000) in 5 of 6 years (Figure 1). Males comprised 91% of 2025 cases (Figure 2); 20–29 and 30–39-year groups were most affected (Figure 3). Transmission has shifted from injecting drug use to sexual contact, which accounted for 94% of new infections in 2025 (Figure 4).

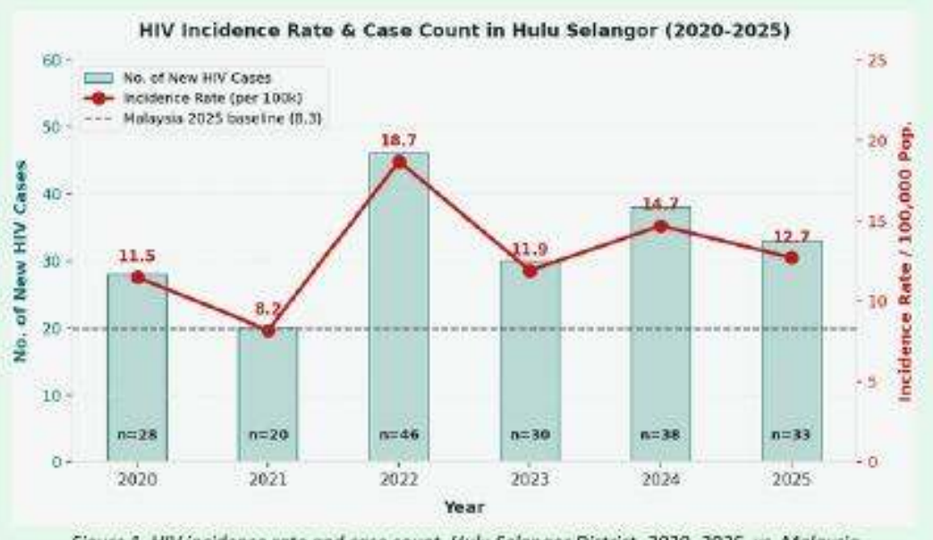


Figure 1. HIV incidence rate and case count, Hulu Selangor District, 2020–2025, vs. Malaysia national rate (8.3/100,000).

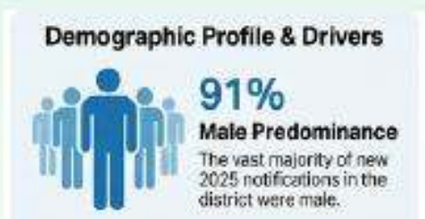


Figure 2. Gender Distribution of Notified Cases (%), Hulu Selangor District, 2025

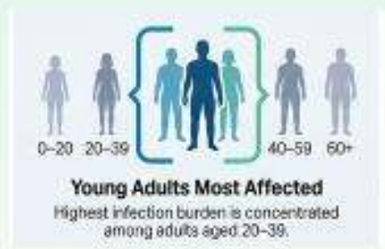


Figure 3. HIV Epidemic Pattern by Age Group in Hulu Selangor District, 2025



Figure 4. Change in HIV Landscape in Hulu Selangor District, 2020-2025

CONCLUSION

Hulu Selangor demonstrates a consistently higher HIV incidence than the national average across 2020–2025, underscoring the need for intensified local surveillance, targeted screening among key populations, and expanded decentralised prevention and treatment services, aligned with Malaysia's 2030 Ending AIDS goal.

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NAC26 EP112

High-Risk HPV Prevalence and Genotype Distribution Among Women Living with HIV in Universiti Malaya Medical Centre

Anisa Salleh
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Universiti Malaya

NAC26EP112 | Track B – Public Health

High-Risk HPV Prevalence and Genotype Distribution Among Women Living with HIV in Universiti Malaya Medical Centre

Anisa Salleh[1], Reena Rajasuriar[1,2], Jamal I-Ching Sam[3,7], Adeeba Kamarulzaman[4,7], Yin Ling Woo[5,7], Anjanna Kukreja[1,2,6]

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INTRODUCTION

Women living with HIV (WWH) are at increased risk of persistent HPV infection and cervical cancer due to higher HPV positivity rates and delayed viral clearance. Although HPV positivity among WWH is well documented in African cohorts, data from Asia-Pacific remain limited. A meta-analysis reported high-risk (HR) HPV prevalence of 34.6%[1] among WWH in Asia-Pacific, but Malaysian data are lacking.

OBJECTIVE

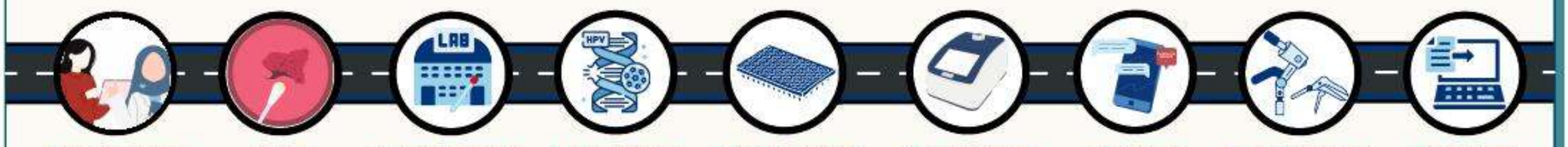
To determine HR-HPV prevalence and genotype distribution among WWH attending routine HIV care at UMMC and describe their subsequent colposcopy outcomes.

METHODOLOGY

A cross-sectional study was conducted among WWH attending routine follow-up at the Infectious Diseases (ID) Clinic, UMMC.

ID clinic, Universiti Malaya Medical Centre | November 2025 - July 2026

Eligibility Criteria of WWH
- Aged 30–65 years.
- No history of cervical cancer.
- Not currently pregnant.
- Have not undergone a total abdominal hysterectomy.
- No documented negative HPV test within past 3 years



Eligible patients approached during follow-up at clinic → Patient performed HPV self-testing → HPV swab samples sent to UMMC Microbiology Lab for processing → DNA extraction performed using NIMBUS system (Seegene)[2] → HR-HPV detected using Allplex HPV HR Detection assay (Seegene)[3] → PCR performed using CFX96 Real-Time PCR Detection System (Bio-Rad)[4] → HPV results communicated to participants via WhatsApp → HR-HPV positive patients referred to O&G for colposcopy → Colposcopy outcomes recorded and analysed

RESULTS

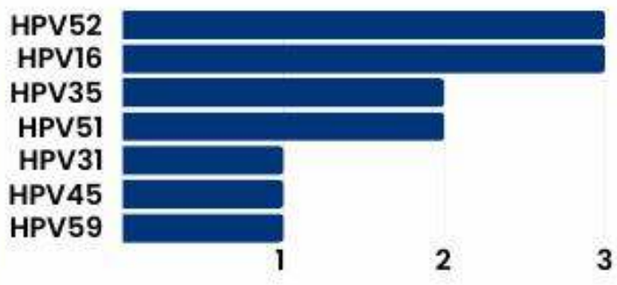
64 WWH **approached** during follow-up visits at ID clinic

71.9% (n= 46) WWH **participated**

- Age Median: **47 years**
- **95.7%** have undetectable viral load (< 200 copies)
- **58.7%** had no prior HPV testing
- **100%** samples were **successfully** tested → **adequate sampling** by self-collection

HR-HPV PREVALENCE & GENOTYPE DISTRIBUTION

Out of **46** HPV samples, **HR-HPV** was detected in **17.4%** (n= 8)



4 women had multiple HPV genotypes

3.8-fold higher HR-HPV prevalence in women living with HIV than in the Malaysian general screening population

17.4% vs 4.53%[5]

($p < 0.001$)

LINKAGE TO CARE

87.5% (n= 7/8) WWH completed colposcopy

Histopathology finding	n (%)
Cervical Intraepithelial Neoplasia (CIN) 2	1 (14.3)
Chronic cervicitis/endocervicitis ± squamous metaplasia	6 (85.7)
Malignancy	0 (0)

DISCUSSION

A SUBSTANTIAL HR-HPV BURDEN EXISTS DESPITE GOOD HIV CONTROL

- HR-HPV remains an important concern among WWH **even with high rates of viral suppression.**
- The observed prevalence reinforces **need for cervical cancer screening to remain an integral part of HIV care.**

HPV GENOTYPING CAN INFORM RISK-BASED FOLLOW-UP

- Detection of HPV16 and HPV52 highlights the **presence of clinically relevant high-risk genotypes** in this population.
- Multiple HPV infections further support the need for **appropriate risk-based surveillance and follow-up.**

SCREENING CAN TRANSLATE INTO EARLY DETECTION

- Successful linkage from HPV testing to colposcopy demonstrates **effective diagnostic follow-up.**

CONCLUSION

Despite the small sample size, HR-HPV prevalence among WWH was 3.8-fold higher than the 4.53% prevalence among Malaysian women without HIV. Integration of HPV self-testing into routine HIV care achieved good linkage to colposcopy and may facilitate early cervical cancer prevention. Further data are needed to characterise HPV burden in this population.

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This project was supported by a grant from the Monash University Malaysia Pro Vice-Chancellor Research Fund. We gratefully acknowledge Seegene Inc, South Korea and Neoscience Sdn Bhd, Malaysia for the provision of the HPV test kits used in this study. All study activities, data analysis, and interpretation were undertaken independently by the research team.

NAC26 EP113

Willingness to Prescribe HIV Pre-Exposure Prophylaxis Among Private Malaysian Muslim General Practitioners: Knowledge, Attitudes and Implementation Barriers

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All contents | Track A list | Track B list | Track C list

Willingness to Prescribe Pre-Exposure Prophylaxis Among Private Malaysian Muslim General Practitioners: Knowledge, Attitudes and Implementation Barriers

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INTRODUCTION

Despite its established effectiveness (1), pre-exposure prophylaxis PrEP uptake remains suboptimal among populations at increased risk of HIV acquisition. In Malaysia, the extensive network of private general practices represents a potential setting for expanding access to PrEP. However, in a Muslim-majority country, Muslim general practitioners (GPs) may encounter distinct ethical, religious, and professional considerations when providing PrEP. To date, no study has examined the perspectives of Muslim GPs towards PrEP in Malaysia. This study aimed to assess willingness to prescribe PrEP, perceived knowledge, attitudes, barriers, facilitators, and training needs among private Malaysian Muslim GPs.

OBJECTIVES

1. To evaluate factors associated with willingness to prescribe PrEP among private Malaysian Muslim GPs'.
2. To evaluate perceived knowledge and attitudes towards PrEP.
3. To identify barriers and facilitators to PrEP prescribing and training needs.

METHODOLOGY

Design & Setting
Cross-sectional survey, private Malaysian Muslim GPs, from 19 Mar–28 Jun 2026 (purposive convenience sampling)

Sample (n=193)
Inclusion criteria: MMC-registered, ≥ 2 yrs experience, private practice, self-identified Muslim

Instrument
Validated 37-item questionnaire, adapted from extensive literatures, 5 sections — sociodemographics; knowledge (11 items on a 5-point scale [poor–excellent]; attitudes (17 items across 5 domains, 5-point Likert [strongly disagree to strongly agree]); willingness (6 items on a 4-point scale [1=completely unwilling–4=completely willing]); barriers/facilitators/training needs (multiple-response checkboxes). Content-validated (I-CVI=1), piloted among 5 GPs.

Data Collection
Google Forms via WhatsApp/Telegram/Threads/FB/TikTok and hard-copy questionnaires distributed to private GPs.

Ethics Approval
UiTM REC (FERC-PH240-UGA27/2026)

Analysis
SPSS v30 — descriptive statistics, binary logistic regression (crude & adjusted OR, 95% CI), significant set at $p<0.05$

RESULTS

- **Willingness:** Overall, 75.6% were willing to prescribe; good/very good/excellent self-rated knowledge strongly predicted willingness (aOR 5.73, 95% CI 1.70–19.28, p=0.005).
- **Knowledge & attitudes:** 67.4% rated knowledge as good/very good/excellent; 83.4% agreed PrEP is effective.
- **Religious and ethical considerations:** Most GPs agreed that PrEP prescribing aligns with their professional obligation (62.7%) and the ethical obligation to prevent disease (65.3%), while 52.3% considered it consistent with the Islamic principle of preserving life (ḥifẓ al-nafs). However, 36.8% were concerned about community perceptions, 26.4% perceived prescribing to MSM as conflicting with their religious beliefs, and 32.1% felt uncomfortable prescribing to unmarried or same-sex partners.
- **Top 5 barriers:** cost/no insurance (97.4%), concern of poor adherence (93.3%) and antiretroviral resistance (93.3%), insufficient training (92.7%), lack of guidelines (91.2%).
- **Top 3 facilitators:** clear referral pathways (97.9%), PrEP training (97.6%), access to prescribing guidelines (95.6%).
- **Training needs:** GPs' top training priorities were PrEP dosing regimens (91.7%), managing side effects and toxicity (68.9%), and clinical/laboratory monitoring (64.8%).

DISCUSSION

There is a **substantial gap between willingness to prescribe PrEP and previous prescribing experience**, consistent with international evidence that provider awareness and willingness do not necessarily translate into clinical adoption (2). GPs with good to excellent self-rated PrEP knowledge had nearly six-fold higher odds of willingness than those with poor knowledge, **highlighting the importance of provider competency in PrEP implementation.** Despite high willingness, only a third felt sufficiently knowledgeable to conduct an informed discussion, which aligns with previous evidence identifying knowledge and PrEP prescribing among primary care providers (2,3). Implementation barriers were predominantly related to financial reimbursement, provider training, adherence, resistance, and clinical guidance. Conversely, all proposed facilitators were endorsed by >90% of respondents, particularly PrEP training and clear referral pathways. **These findings support strengthening technical training, clinical protocols, referral systems, and financial accessibility to facilitate PrEP integration into private primary care.**

CONCLUSION

A substantial gap exists between willingness and actual PrEP prescribing among Malaysian Muslim GPs, with provider knowledge emerging as a key determinant. Future research should develop and evaluate contextually appropriate implementation strategies to strengthen provider competency and address structural and religious barriers to PrEP delivery.

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NAC26 EP121

Declining HIV prevalence and incidence among blood donors at Pusat Darah Negara: a 6-year analysis (2020-2025)

Elizebeth Mah
Pusat Darah Negara

KEMENTERIAN KESIHATAN MALAYSIA
PUSAT DARAH NEGARA

DECLINING HIV PREVALENCE AND INCIDENCE AMONG BLOOD DONORS AT PUSAT DARAH NEGARA: A 6-YEAR ANALYSIS (2020-2025)

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Abstract ID: NAC26EP121

INTRODUCTION

Blood donors are a repeatedly screened population whose HIV trends can serve as an early signal of transmission patterns in the wider community. Nucleic acid testing (NAT), which detects viral genetic material earlier than antibody-based serology testing, combined with serology screening at Pusat Darah Negara (PDN) enables detection of infections missed by antibody testing alone.

OBJECTIVES

To assess the trend of HIV prevalence and incidence among blood donors at PDN from 2020-2025, and characterize HIV-positive donations by detection method, donor type and gender.

METHODS

Retrospective analysis of 1,171,871 blood donations collected by Pusat Darah Negara from 2020–2025, comprising 226,028 first-time donations and 945,843 repeat (previously donated) donations. HIV screening was performed using Procleix Ultrio Elite NAT together with routine Abbott Alinity HIV Ag/Ab serology throughout the study period.

HIV positive donations were characterised by detection category, donor type (first-time or repeat), and sex. Available follow-up information was reviewed for discordant NAT/serology cases.

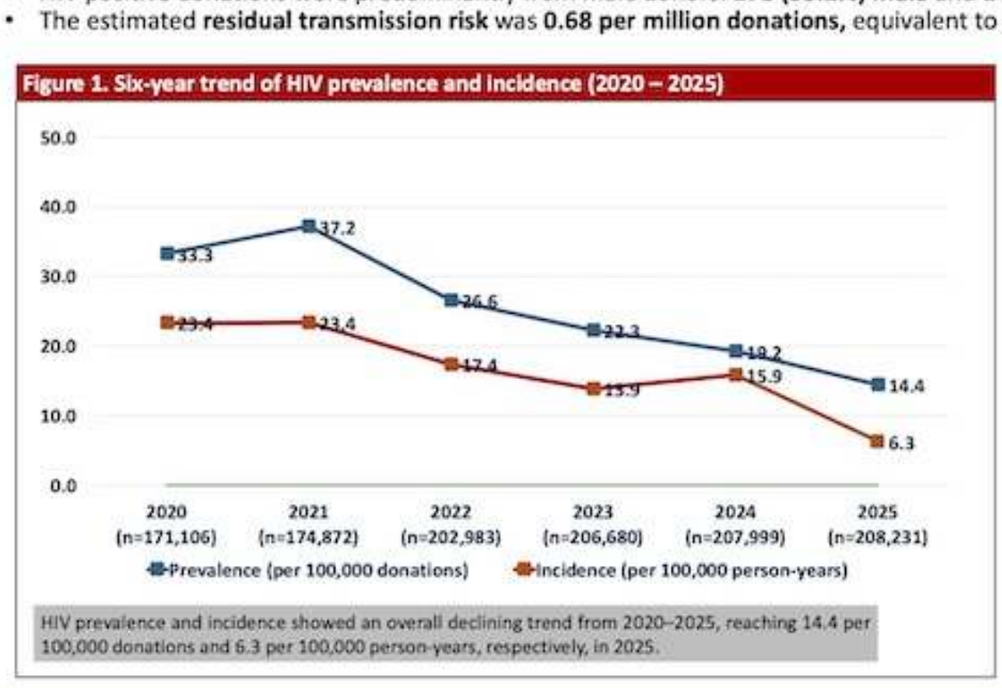
Prevalence was calculated per total donations screened. Incidence was estimated among repeat donors and expressed per 100,000 person-years. Residual transmission risk was estimated using the Weusten model.

RESULTS

A total of **1,171,871 blood donations** were screened from 2020-2025, with **292 HIV positive donations** identified.

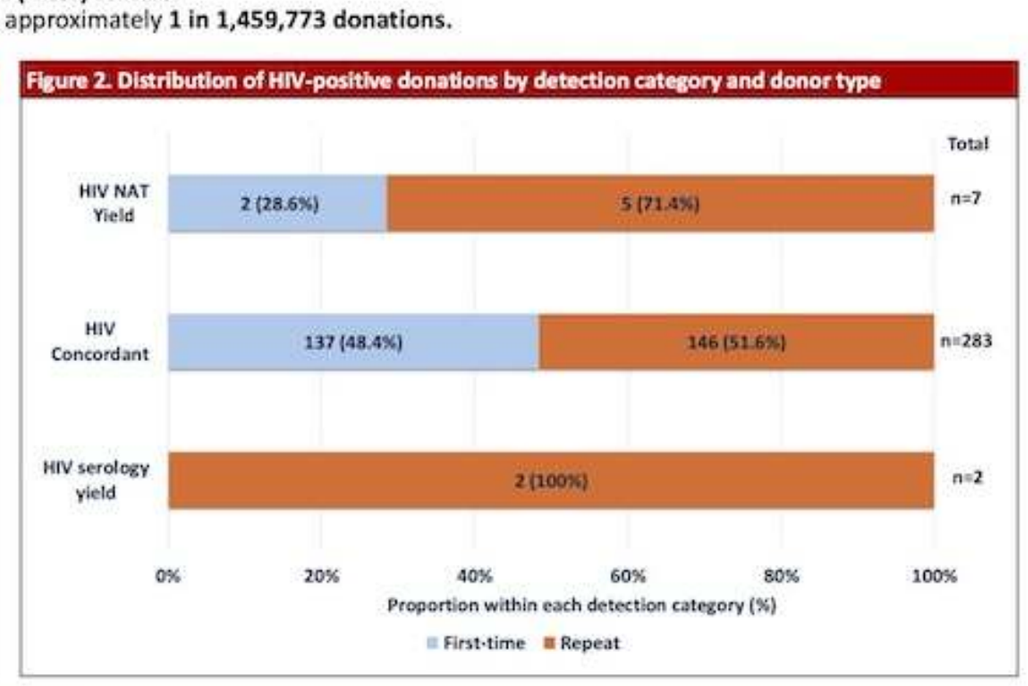
- **HIV prevalence declined** from **33.3 per 100,000 donations in 2020** to **14.4 per 100,000 donations in 2025**, with an overall prevalence of **24.9 per 100,000 donations.**
- **HIV incidence among repeat donors** declined from **23.4 per 100,000 person-years in 2020** to **6.3 per 100,000 person-years in 2025**, with an overall incidence of **16.2 per 100,000 person-years.**
- Of the 292 HIV positive donations, **283 (96.9%)** were **NAT/serology concordant**, **7 (2.4%)** were **NAT-yield only** and **2 (0.7%)** were **serology-yield only.**
- Among the seven **NAT-yield cases**, **5 (71.4%)** occurred in **repeat donors** and **2 (28.6%)** in **first-time donors.**
- In comparison, **concordant cases were more evenly distributed** between first-time (n=137, 48.4%) and repeat donors (n=146, 51.6%), while both **serology-yield cases occurred in repeat donors (n=2, 100%).**
- HIV positive donations were predominantly from male donors: **278 (95.2%) male** and **14 (4.8%) female.**
- The estimated **residual transmission risk** was **0.68 per million donations,** equivalent to approximately **1 in 1,459,773 donations.**

Figure 1. Six-year trend of HIV prevalence and incidence (2020 – 2025)



HIV prevalence and incidence showed an overall declining trend from 2020–2025, reaching 14.4 per 100,000 donations and 6.3 per 100,000 person-years, respectively, in 2025.

Figure 2. Distribution of HIV-positive donations by detection category and donor type



DISCUSSION

- HIV prevalence and incidence showed an overall declining trend from 2020–2025. As the same NAT screening platform was used throughout the study period, the observed decline is unlikely to be explained by a change in NAT platform.
- NAT-yield cases were more commonly detected among previously donated donors (71.4%), whereas concordant cases were almost equally distributed between first-time and repeat donors. This is consistent with recent HIV acquisition after a prior non-reactive donation and highlights the value of NAT in detecting window-period infection.
- Most HIV-positive donations were from male donors. However, this should be interpreted together with the underlying sex distribution of the donor population.
- Both serology-yield cases occurred among previously donated donors. As the number of cases was very small and clinical/treatment information was incomplete, no firm interpretation can be made regarding these discordant results.
- The very low residual transmission risk supports the effectiveness of combined NAT and serology screening in maintaining blood safety.
- As this analysis was based on routinely collected blood donor data, the findings may not fully reflect HIV transmission patterns in the wider community.

CONCLUSION

Both HIV prevalence and incidence among PDN blood donors declined over six years, reflecting improving transfusion safety and possibly broader epidemic trends. The predominance of NAT-yield cases among repeat donors highlights persistent window-period transmission risk even among donors previously screened non-reactive, underscoring NAT continued value in blood safety and its potential contribution to national HIV surveillance.

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NAC26 EP123

Leveraging Routine HIV Care to Improve Cervical Cancer Screening: Early Experience with HPV Self-Testing Among Women Living with HIV in University Malaya Medical Centre

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Universiti Malaya

NAC26EP123 | Track B - Public Health

Leveraging Routine HIV Care to Improve Cervical Cancer Screening: Early Experience with HPV Self-Testing Among Women Living with HIV in Universiti Malaya Medical Centre

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INTRODUCTION

Women living with HIV (WWH) are six times more likely to develop cervical cancer than women without HIV[1], yet screening remains suboptimal. Routine HIV care provides an opportunity to improve cervical cancer screening by integrating HPV self-testing into existing HIV services for this high-risk population. This study describes early experience of offering HPV self-testing during routine HIV follow-up visits among WWH at Universiti Malaya Medical Centre (UMMC).

OBJECTIVE

To assess the feasibility and acceptability of integrating HPV self-testing into routine HIV care visits for cervical cancer screening among WWH.

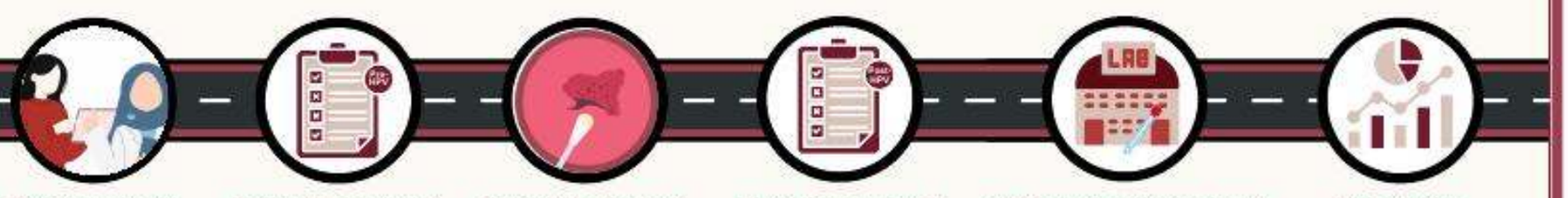
METHODOLOGY

A cross-sectional study was conducted among WWH attending routine follow-up at the Infectious Diseases (ID) Clinic, UMMC.

Infectious Diseases clinic, Universiti Malaya Medical Centre | November 2025 - May 2026

Eligibility Criteria of WWH

- Aged 30–65 years.
- No history of cervical cancer.
- Have not undergone a total abdominal hysterectomy.
- Not currently pregnant.
- No documented negative HPV test within the past 3 years



RESULTS

64 WWH **approached** during follow-up visits at ID clinic

71.9% (n= 46) WWH **participated**

Age Median: **47 years**

95.7% have undetectable viral load (< 200 copies)

58.7% WWH had no prior HPV testing

EXPERIENCE WITH HPV SELF-TESTING

Post-screening surveys demonstrated **high acceptability**.

- **95.7%** (n= 44) reported **no difficulty** performing self-sampling
- **78.3%** (n= 36) **preferred self-sampling** over Pap smear
- **50%** (n= 23) preferred **self-sampling** at the **ID clinic**
- **84.8%** (n= 39) found the procedure **easy**
- **97.8%** (n= 45) Willing to regularly self-test for HPV if it is the only available option
- **30.4%** (n= 14) preferred **home-based self-sampling**

DISCUSSION

TURNING ROUTINE HIV VISITS INTO SCREENING OPPORTUNITIES

- HPV self-testing can be **embedded within routine HIV care**, making cervical cancer screening **part of an existing healthcare encounter**.
- This approach may **minimise additional clinic visits and screening-related barriers.**

A PATIENT-ACCEPTABLE APPROACH TO CERVICAL CANCER SCREENING

- High ease of self-sampling and willingness to repeat testing indicate that **self-testing is well suited to routine HIV care.**
- The preference for self-sampling suggests potential for a **more patient-centred screening experience.**

BRIDGING THE CERVICAL CANCER SCREENING GAP

- Many women had **no prior HPV testing despite ongoing engagement with HIV care**, pointing to a missed opportunity for prevention.
- Leveraging existing HIV services could **bring cervical cancer screening** to women who might otherwise remain unscreened.

CONCLUSION

Early findings suggest HIV care provides a feasible and acceptable platform to improve cervical cancer screening among WWH. Integrating HPV self-testing into existing HIV services may increase screening access and strengthen linkage to care for this high-risk population in Malaysia.

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This project was supported by a grant from the Monash University Malaysia Pro Vice-Chancellor Research Fund. We gratefully acknowledge Seegene Inc, South Korea and Neoscience Sdn Bhd, Malaysia for the provision of the HPV test kits used in this study. All study activities, data analysis, and interpretation were undertaken independently by the research team.

NAC26 EP008

Bringing Oral PrEP to the Community: Implementation of Community-Based PrEP Services in Penang, Malaysia

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All contents | Track A list | Track B list | Track C list

Bringing Oral PrEP to the Community: Implementation of Community-Based PrEP Services in Penang, Malaysia

Kelvin Ying[1], Min Hui Cheah[1,2*], Lai Kin Ng[1], Bee Cheng Low[1], Hezreen Shaik Daud[1]

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INTRODUCTION

Despite national efforts to scale up Pre-Exposure Prophylaxis (PrEP) for HIV prevention in Malaysia, HIV continues to disproportionately affect key populations, including men who have sex with men, transgender individuals, female sex workers, and people who inject drugs. Clinic-based PrEP delivery models such as PrEPGov continue to face challenges related to stigma, logistical barriers, and long waiting times. As part of the Consortium to Advance Access to New HIV Prevention Products (CAAPP) project, community-based PrEP services are being implemented through NGOs such as Penang FHDA to improve accessibility, acceptability, and uptake of PrEP among key populations.



OBJECTIVES

General Objective

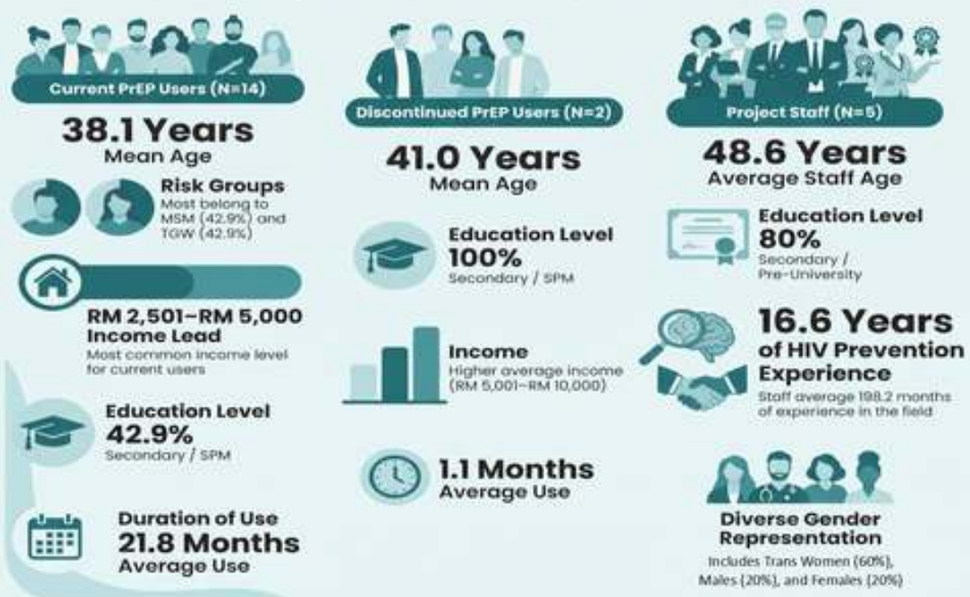
- To evaluate the implementation of a community-based oral PrEP service at the Penang Family Health Development Association (FHDA).

Specific Objectives

- Assess the feasibility and acceptability of community-based PrEP delivery among users and staff.
- Explore users' experiences and perceived benefits of PrEP, including impact on anxiety, confidence, and sexual health autonomy.
- Identify facilitators and barriers to PrEP uptake and continuation.
- Examine providers' perspectives on implementation, including organisational and structural challenges.

METHODOLOGY

Qualitative exploratory study guided by the Consolidated Framework for Implementation Research (CFIR). Twenty-one study participants across five groups. Focus group discussions (FGD) and in-depth interviews (IDI) were conducted September–November 2025 at Penang FHDA; data were analysed using reflexive thematic analysis. Ethics approval: Taylor's University HEC 2024/503.



RESULTS

1 Community-based PrEP delivery was highly feasible, acceptable and effective.
Peer-led outreach, supportive and non-judgemental staff, and flexible service delivery facilitated access and engagement.

> **FSW2:** *"Your service is already very good... unlike government hospital, need to wait 1–2 hours."*
>
> **PS1:** *"I go to their meeting spots... at the sauna... I reach out on Grindr... I'll explain [PrEP]."*

2 PrEP supported psychosocial wellbeing and sexual health autonomy.
Participants reported reduced anxiety about HIV, greater confidence in sexual relationships, and increased autonomy over sexual health.

> **MSM4:** *"The biggest benefit is peace of mind... like insurance and gives me reassurance."*

3 Daily oral PrEP was generally preferred.
Daily dosing was valued for simplicity and reliability, while on-demand 2-1-1 dosing was associated with confusion around timing.

> **FSW1:** *"I take them all together at night... so I won't forget."*
>
> **PS5:** *"The misconception very often surrounds 2-1-1... confusion surrounds the timing of the second and third dosages."*

4 Stigma, privacy and affordability remained persistent barriers.
HIV-related stigma, concerns about privacy, and the cost of laboratory monitoring affected PrEP access and use.

> **MSM1:** *"He asked, 'Do you have HIV?'... people think if you're on PrEP, you must have HIV."*
>
> **PS1:** *"For the first time taking PrEP, they have to pay over RM100 because of the required blood tests... many cannot afford it."*

5 Implementation was supported by motivated providers but constrained by limited resources and coordination gaps.

> **PS3:** *"One community health worker (CHW) says this, another CHW says that, and the clinic says something else... the client will wonder which one is true."*

DISCUSSION

Community-based delivery can complement clinic-based PrEP
High acceptability of peer-led, flexible services suggests bringing PrEP closer to communities may reduce practical barriers and improve engagement among key populations.

PrEP delivery should be differentiated by user needs
Daily oral PrEP was generally preferred; challenges with 2-1-1 dosing highlight the value of simple, appropriate options. Long-acting injectable PrEP could help users who struggle with daily or event-driven dosing.

Access involves more than PrEP medication
HIV-related stigma, privacy concerns, and laboratory costs show that PrEP scale-up requires attention to the wider service environment, not medication alone.

Community delivery requires health-system integration
Provider motivation alone is not enough. Clear referral pathways, consistent communication, adequate resources, and defined roles between community and public-sector providers' matter.

CONCLUSION

This study demonstrates that the community-based oral PrEP delivery model at Penang FHDA is perceived as feasible, acceptable, and effective in expanding HIV prevention among key populations in Malaysia. To sustain these gains and scale up services nationally, future implementation must resolve persistent socio-structural barriers by executing four target actions: (1) neutral product packaging to protect privacy; (2) establish sustainable lab monitoring subsidies and tiered fee schedules to ease financial burdens for low-income clients; (3) standardize pictorial 2-1-1 dosing schedules to address on-demand timing confusion; and (4) formulate inter-provider SOPs to clarify roles and eliminate communication silos between community outreach workers and clinical staff. Embedding these structural, financial, and organizational adaptations is essential to transition this community-based success into a highly accessible, resilient, and person-centered national HIV prevention framework

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PT FOUNDATION 526540-W YAYASAN PT
Inap PT Powered By PT Foundation

Bridging the Gap: Compassionate Empowerment as a Framework for Reintegration and Treatment Continuity at INAP PT

TRACK C • NGO & COMMUNITY

Rozmanshah Abdullah
Co-author: Zahiran bin Toee • PT Foundation • Abstract ID: NAC26EP010

SUPPORT, NOT SURVEILLANCE

A compassionate, verifiable approach to treatment continuity during transitional care

INTRODUCTION

ART is highly effective in controlled settings, yet adherence can collapse after discharge when housing instability, stigma or unsafe environments disrupt treatment routines. INAP PT provides a transitional shelter between hospital discharge and independent living, guided by compassionate empowerment and the principles of Hifz al-Nafs (preservation of life) and Raf' al-haraj (alleviating hardship).

OBJECTIVES

The objective was to characterise INAP PT's transitional care model and evaluate a DOT-akin adherence monitoring system designed to support, rather than penalise, residents.

METHODOLOGY

INAP PT stabilises residents across three pillars:

01 **SAFE ENVIRONMENT**
Up to 20 beneficiaries

02 **MEDICAL CONTINUITY**
ART adherence monitoring + clinic coordination

03 **PSYCHOSOCIAL EMPOWERMENT**
Peer counselling + reintegration preparation

PROTOCOL REFINEMENT

DISCUSSION

The shift from binary, time-unspecified tracking to time-logged, verified monitoring appears to have strengthened adherence while reframing monitoring as support rather than penalty. Within the shelter's compassionate-empowerment model, residents are accompanied through treatment continuity instead of being reduced to compliance events.

RESULTS

ART ADHERENCE

90.0%
May 2026 • n=5
range 81–100%

→

98.1%
June 2026 • n=7
range 86.7–100%



5 of 7 June residents were continuous from May; 2 were new intakes.
Deviations mainly reflected documented clinical or logistical disruptions, rather than voluntary non-adherence.

QUALITATIVE GAINS
Improved wellness • reduced stigma • restored dignity

WHAT CHANGED?

BEFORE
Binary
"taken / not taken"

→

REFINED PROTOCOL
Staff verification
+ actual intake time
+ standardised logging

CONCLUSION

A DOT-akin adherence protocol, embedded within compassionate empowerment and refined through ongoing review, offers a verifiable and humane mechanism for sustaining treatment continuity among vulnerable PLHIV.

A PROMISING, REPLICABLE MODEL FOR NGO TRANSITIONAL CARE

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Data source: INAP PT Kuala Lumpur resident records, May–June 2026.

5th National AIDS Conference 2026

NAC26 EP012

Beyond Peer Support: A Practice Domain Framework for Community-Based HIV Case Management in Malaysia

Han Hoong Chew
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PT Foundation

Beyond Peer Support: A Practice Domain Framework for Community-Based HIV Case Management in Malaysia

Chew Han Hoong[1], Azad Nor Effandi bin Abdul Wahab[1], Kathy Chin Chew Lee[1], Puteri Nadine An-Nur Erwandy[1], Abdul Hafiz bin Idris[1], Ano Tong Ming Yun[1]
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INTRODUCTION

Community-based HIV programmes in Malaysia have traditionally emphasised emotional and social peer support to promote treatment adherence and retention in care. However, many people living with HIV (PLHIV) require broader support. PT Foundation's Positive Living Program organises case management around four practice domains: emotional and social support, adherence reinforcement and practical support, navigation and advocacy, and intensive stabilisation.

OBJECTIVES

To develop and demonstrate a practice domain framework for community-based HIV case management delivered through peer support.

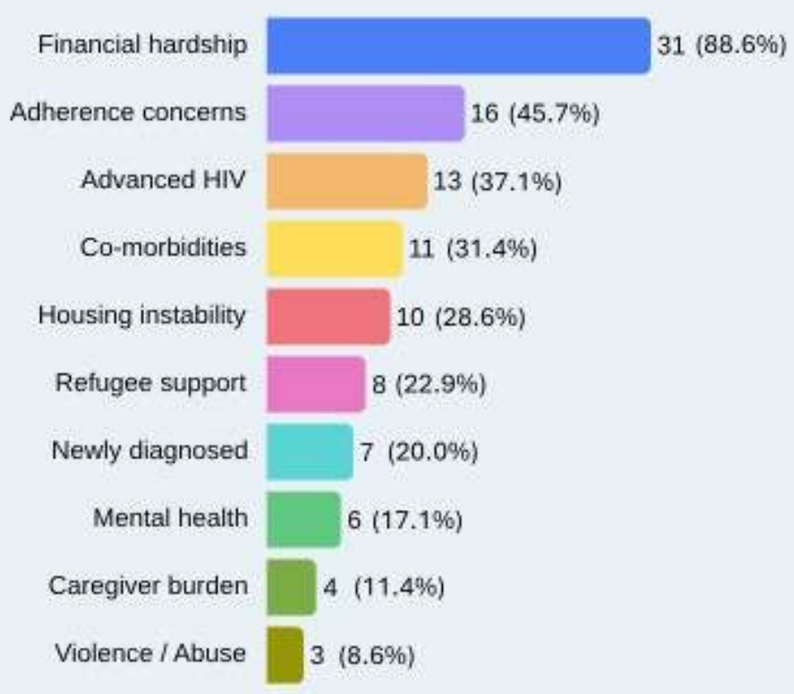
METHODOLOGY

275 clients engaged → 35 comprehensive cases assessed → Retrospective review of case needs and interventions → Recurring practice domains identified → Supported outcomes described

A retrospective deductive content analysis of routine case records examined presenting problems, practice domains, interventions, and documented case outcomes. Clients could present with multiple needs and receive support across multiple practice domains.

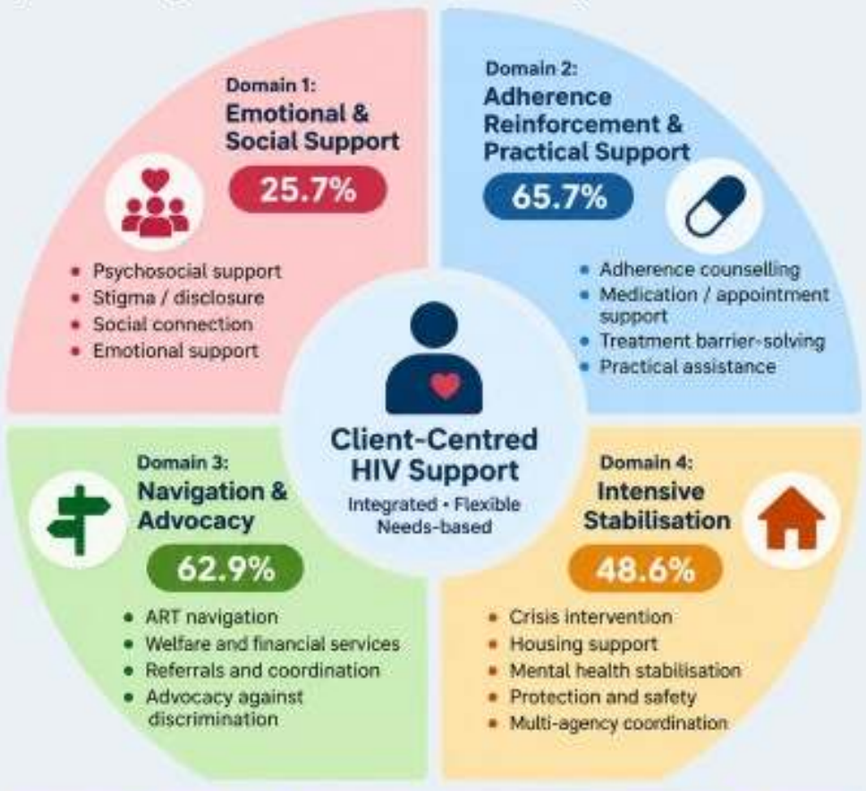
RESULTS

Figure 1. Presenting needs of clients (% of comprehensive cases, n = 35)



- Cases may present with multiple, overlapping needs; percentages are not mutually exclusive.

Figure 2. Practice domains identified among comprehensive cases (% of comprehensive cases, n = 35)



Case reported outcomes

- 62.9% Treatment adherence maintained
- 37.1% Financial assistance accessed
- 31.4% Improved self-management
- 11.4% Housing stability
- 11.4% Continuity of care until end-of-life

DISCUSSION

1. Community-based HIV case management often goes beyond emotional and adherence support to address multiple client needs.
2. 54.3% required support across ≥2 domains, illustrating the breadth of peer-led support in barrier-solving, service navigation and care coordination.
3. The four domains provide a simple way to describe this flexible, needs-based practice and may help inform workload, skills, supervision and resources.

CONCLUSION

The findings support a practice domain framework that conceptualises community-based peer support as extending into broader case management functions to address the multidimensional needs of PLHIV. The framework offers a practical model for person-centred, community-based HIV care.

NAC26 EP015

From Community-Based Frontline Insights to Printed Practice: Developing Youth-Informed HIV and PrEP Communication Materials at PT Foundation Malaysia

Wan Mohd Ridwan W Mohd Yusoff
Muhammad Ihsan Salim, Ming Yun Tong, Tai Fook Then
PT Foundation

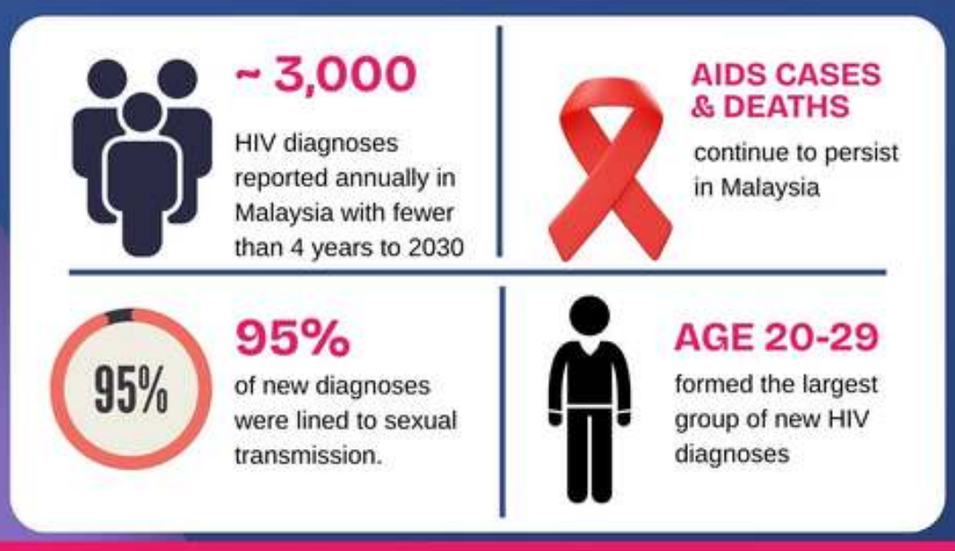
FROM COMMUNITY-BASED FRONTLINE INSIGHTS TO PRINTED PRACTICE

DEVELOPING YOUTH-INFORMED HIV AND PREP COMMUNICATION MATERIALS AT PT FOUNDATION MALAYSIA

Wan Mohd Ridwan Bin W Mohd Yusoff; Muhammad Ihsan Bin Salim; Tong Ming Yun; Tai Fook Then
PT Foundation, Kuala Lumpur, Malaysia

INTRUDUCTION

With fewer than four years to 2030, Malaysia still reports about 3,000 HIV diagnoses annually, while AIDS cases and deaths persist. In 2023, 95% of new diagnoses were linked to sexual transmission; people aged 20–29 formed the largest group. Younger and hidden key populations may face stigma, cultural sensitivities, fragmented information and age-related barriers. Frontline observation also suggests testing can be associated with "bad" or shameful behaviour. Updated materials should normalise testing as responsible healthcare and offer engaging, non-judgmental, culturally responsive guidance.





PHASE 1 PURPOSE

Translate frontline knowledge into updated, printable HIV and PrEP / PEP materials for immediate service use; normalise testing; strengthen informed self-agency; and give diverse readers clear protection, treatment and peer-navigation pathways without identity- or behaviour-based labelling.

METHODOLOGY

PHASE 1 • LONGITUDINAL, PRACTICE-LED PROCESS

Ideas emerged from the lead author's work as a Senior Community Healthcare Worker, were refined as Team Lead Peer Navigator at Klinik Kesihatan Kuala Lumpur, and consolidated after transition to Programme Manager. The lead author directed content, communication framework and production requirements. Muhammad Ihsan Bin Salim translated these into visual design and completed extensive iterative revisions. The work also addressed depleted IEC stocks and an immediate operational need. No community validation or effectiveness evaluation is claimed.

RESULTS

Two coordinated tri-fold brochures were produced, printed and introduced into service use. The HIV brochure applies Test–Protect–Treat, covering HIV, AIDS, transmission and non-transmission, ART, TasP and U=U. The PrEP / PEP brochure uses illustrations, colour-coded pathways, dosing guidance, emergency timelines and peer-navigation access. Both frame testing as routine, responsible healthcare and choices as actionable pathways. Neutral, action-oriented language reduces identity or behaviour-based risk labels while remaining suitable for younger audiences, concerned parents and hidden key populations, including people affected by chemsex who may need harm-reduction or recovery support.



THE TWO FINAL BROCHURES OUTPUTS

PHASE 1 • PRACTICE-LED DEVELOPMENT AND SERVICE INTRODUCTION

- Two final brochure versions shown
- Iterative refinement through internal feedback
- No community validation or measured effectiveness claimed

CONCLUSION

Community-based frontline insights can become practical communication tools through programme leadership and intergenerational teamwork. The brochures operationalise a universal-to-tailored pathway: normalise testing in print, build knowledge and self-agency, then connect readers to peer navigation and appropriate support. This first phase established usable, youth-informed IEC materials for immediate implementation. Community consultation, technical review, user testing and refinement remain future phases as capacity permits.

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ABSTRACT ID: NAC26EP015

E-POSTER · NAC 2026

PT FOUNDATION
YAYASAN PT

NAC26 EP018

Expanding ABCDE: A Person-Centred, MI-Informed HIV/STI Prevention Framework for Peer Navigation in Malaysia's PrEPGov Programme

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Muhammad Ihsan Salim, Tien Wei Long, Ming Yun Tong, Tai Fook Then
PT Foundation

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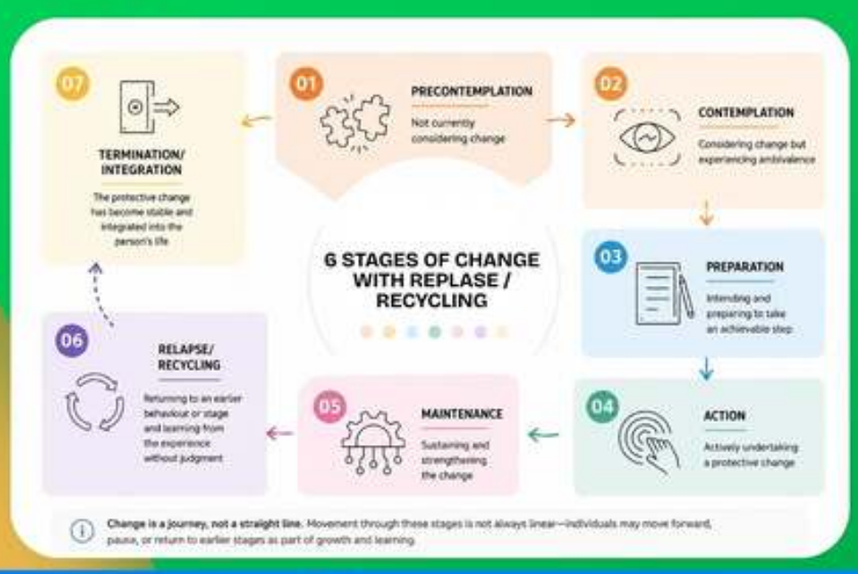
EXPANDING ABCDE

A PERSON-CENTRED, MI-INFORMED HIV/STI PREVENTION FRAMEWORK FOR PEER NAVIGATION IN MALAYSIA'S PREPGOV PROGRAMME

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INTRODUCTION

HIV prevention messaging can feel moralising when abstinence or monogamy overlooks readiness, relationships and lived realities. In Malaysia, stigma around same-sex behaviour, substance use and PrEP may deter less-visible MSM, including people navigating chemsex-related harms. Peer Navigators can translate guidance into culturally responsive, non-judgmental consultations. In a layered architecture, T-P-T is the universal public entry point; expanded ABCDE guides confidential, individually tailored risk-reduction consultation.





OBJECTIVES

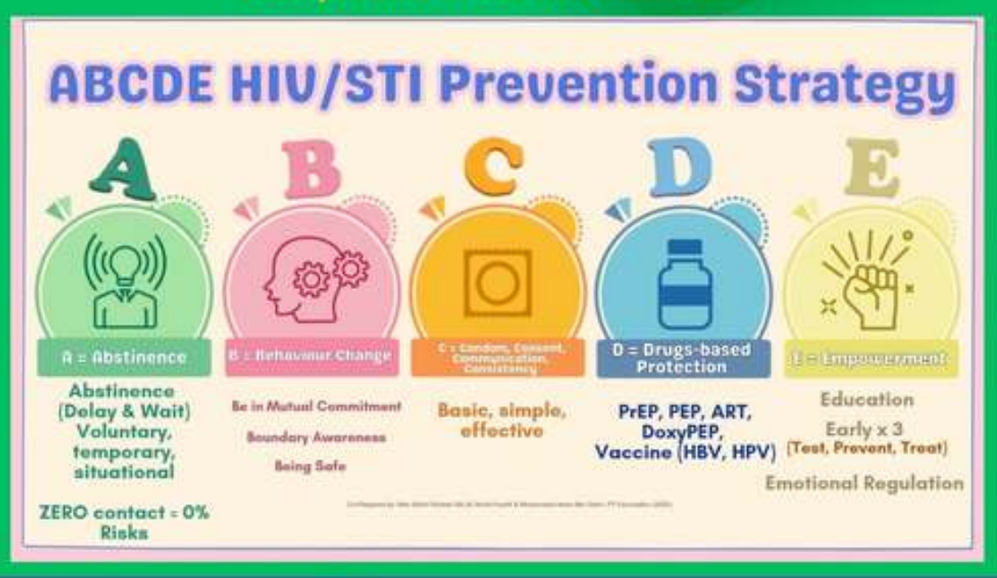
To develop an expanded ABCDE framework integrating combination HIV/STI prevention, harm reduction and Motivational Interviewing (MI)-informed communication while strengthening autonomy, safety and actionable decision-making.

METHODOLOGY

PRACTICE-BASED SERVICE INNOVATION

Developed through PrEP navigation, community health work, programme materials, team review and prevention guidance. Following the lead author's July 2025 transition to Peer Navigator, experience from MAC ABCDE training, university PROSTAR education and later specialist feedback at JKNS helped clarify complementary roles for public messaging and private risk-reduction consultation. No identifiable client data were analysed. MI (OARS) micro-skills: Open questions, Affirmations, Reflective listening and Summaries were mapped across five domains ABCDE with brief, non-diagnostic needs assessment and referral pathways.

Incorporated in our HIV Healthtalk



RESULT

Practice-based development produced a modular Expanded ABCDE infographic for holistic, culturally responsive, person-centred 12–15-minute PrEP consultations.

It retains abstinence/delay as voluntary, culturally relevant choices while expanding BCDE to include boundaries, consent, communication, biomedical prevention, early action and emotional-regulation awareness.

Compassionate MI/OARS links the domains, allowing C–E to support A/B when aligned with client values.

Peer Navigators facilitate non-diagnostic self-recognition and referral, not clinical intervention, from M0 onwards.

PUBLIC FRONT DOOR: T-P-T
CONFIDENTIAL CONSULTATION: EXPANDED ABCDE
MI-informed choices • boundaries • emotional regulation • harm reduction • self-agency

CONCLUSION

Expanded ABCDE complements the T-P-T public front door by extending inclusive prevention messaging into structured, confidential and person-centred conversations designed to be culturally responsive and community-friendly. Using compassionate MI/OARS, it offers a potentially scalable framework for Peer Navigator training, positioning harm reduction as a bridge to safety, care engagement and self-directed recovery while supporting clients' recognition of emotional-regulation needs and appropriate referral. Client co-design, multidisciplinary review and feasibility evaluation are recommended before wider implementation.

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ABSTRACT ID : NAC26EP018

E-POSTER · NAC 2026

PT FOUNDATION
YAYASAN PT

NAC26 EP020

T-P-T—Ending AIDS More Sustainably: A Culturally Responsive Framework for Inclusive HIV and STI Communication in Malaysia

Wan Mohd Ridwan W Mohd Yusoff
Ming Yun Tong, Tien Wei Long, Kishen Kunalan, Muhammad Ihsan Salim, Tai Fook Then
PT Foundation

T-P-T—ENDING AIDS MORE SUSTAINABLY

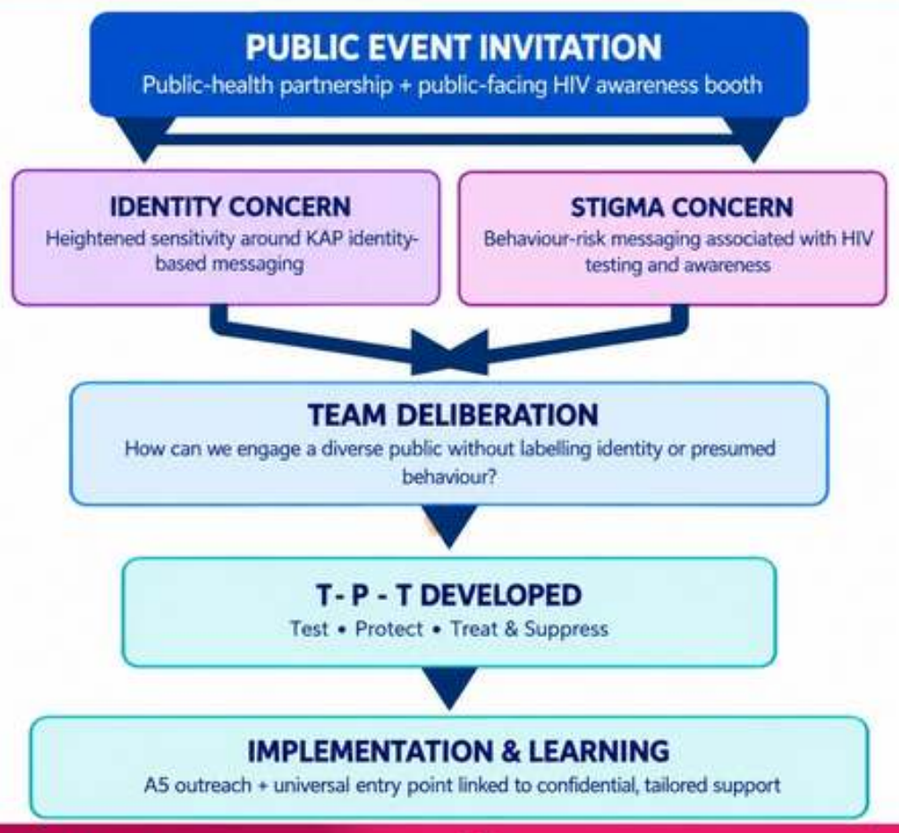
A CULTURALLY RESPONSIVE FRAMEWORK FOR INCLUSIVE HIV AND STI COMMUNICATION IN MALAYSIA

Wan Mohd Ridwan Bin W Mohd Yusoff; Kishen Kunalan; Muhammad Ihsan Bin Salim; Tien Wei Long; Tong Ming Yun; Tai Fook Then
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INTRODUCTION

Ending AIDS by 2030 requires voluntary, timely testing and communication people can approach without shame, fear or identity-based labelling. Frontline observation suggests testing may be perceived, especially by some younger people, as something needed only after "bad" or shameful behaviour. In Malaysia, identity or presumed-risk-centred messages may not reach adolescents, young people, hidden subpopulations or people outside conventional categories. Communication should respect diverse family, cultural, religious and personal perspectives while preserving confidentiality and access to tailored support.





OBJECTIVES

To describe T-P-T, Test, Protect, Treat & Suppress / Akhiri AIDS Lebih Lestari, as a culturally responsive, age-appropriate and population-inclusive framework that normalises HIV / STI awareness and timely testing as responsible healthcare, while linking people to prevention packages, treatment pathways, peer support, harm reduction and recovery.

METHODOLOGY

GENESIS AND ORGANISATIONAL REVIEW • APRIL 2025

While serving as a Community Healthcare Worker, the lead author reframed HIV outreach messaging for a family-oriented Art Market Malaysia ESG event at KL Sentral, responding to heightened sensitivity around identity-based messaging for key affected populations (KAPs). T-P-T emerged through brainstorming and organisational review with Tong Ming Yun (Ano), Tai Fook Then (Raymond) and Tien Wei Long (Justin), with Chew contributing to its earlier design development. It retained readiness and mutual commitment as flexible prevention options rather than a rigid hierarchy. Raymond approved the final A5 card for printing on 16 April 2025. T-P-T was subsequently incorporated into community outreach and HIV education sessions for public and university audiences.

RESULTS

The A5-sized educational card was printed and used at Art Market Malaysia, integrating rapid testing, partner testing, U=U / TasP, vaccination, PrEP / PEP and harm reduction, with QR access to free testing.

T-P-T provides one universal front door:

"Test", offers clinic-, NGO-, community-based testing and where appropriate self-testing pathways;

"Protect" presents readiness, mutual commitment, condoms / lubricant, PrEP / PEP, vaccination and harm reduction;

"Treat & Suppress" supports confirmation, early ART, viral-load monitoring, U=U, peer navigation, mental-health support and recovery. Formal outcome evaluation is required.

• DOCUMENTED IMPLEMENTATION •



ART MARKET MALAYSIA
A5 size - VIP Cards



Latest PT FOUNDATION HIV
Educational Slides

NORMALISE TESTING • BUILD AGENCY • MEET THE WHOLE PERSON

Universal public entry point → confidential, population-responsive care

CONCLUSION

T-P-T separates testing from moral judgement and promotes informed self-agency. Its neutral public messaging links people to confidential support responsive to biopsychosocial-spiritual realities at their point in life.

This universal public front door complements, rather than replaces targeted, person-centred care.

T-P-T is a practice-based, community-led communication innovation supporting a more inclusive and sustainable HIV response. Formal outcome evaluation is required.

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ABSTRACT ID NAC26EP020
E-POSTER · NAC 2026

NAC26 EP044

Strengthening the HIV Care Continuum Through Community-Based Support Services: Experience from Teratak Kasih Tok Nan (TKTN) in Sarawak, Malaysia

Hafiz Tarmizi Noor Azizi
NGO - Malaysian AIDS Foundation

5TH NATIONAL AIDS CONFERENCE 2026
NAC26 EP044

TRACK C · NGO & COMMUNITY

Strengthening the HIV Care Continuum Through Community-Based Support Services: Experience from Teratak Kasih Tok Nan (TKTN) in Sarawak, Malaysia

Hafiz Tarmizi Noor Azizi
NGO - Malaysian AIDS Foundation

380
beneficiaries reached

3
TKTN centres

230 / 75 / 75
Kuching / Miri / Bintulu

INTRODUCTION

While advancements in HIV treatment have improved health outcomes among people living with HIV (PLHIV), challenges such as stigma, psychosocial barriers, limited social support, and difficulties navigating healthcare systems continue to affect engagement throughout the HIV care continuum. Community-based organisations play an important role in complementing clinical services by providing accessible support, strengthening linkage-to-care, and addressing social and psychosocial needs.

OBJECTIVES

This abstract shares the implementation experience of Teratak Kasih Tok Nan (TKTN), a community-based support initiative by Malaysian AIDS Foundation (MAF), in strengthening HIV-related support services and improving access to care in Sarawak, Malaysia.

METHODOLOGY

TKTN operates through collaboration with healthcare providers, government agencies, NGOs, and local stakeholders. The programme provides peer support, HIV education and awareness, psychosocial support, linkage-to-care assistance, and community engagement activities. Programme experiences were documented through activity reports, beneficiary records, stakeholder engagement, and operational observations from three TKTN centres in Kuching, Miri, and Bintulu.

RESULTS

TKTN Sarawak supported a total of 380 beneficiaries, comprising Kuching (230), Miri (75), and Bintulu (75). Through community-based support activities, TKTN provided access to psychosocial support, HIV-related information, community engagement opportunities, and assistance in navigating healthcare services. The implementation across three locations demonstrated the importance of decentralised community support models in improving accessibility and strengthening collaboration between communities, healthcare providers, and stakeholders.

CONCLUSIONS

Community-based support models are essential in strengthening the HIV care continuum by addressing needs beyond medical treatment. The experience of TKTN in Sarawak highlights the importance of decentralised services, peer-oriented approaches, and multi-stakeholder collaboration in supporting Malaysia's efforts towards ending AIDS.

TRACK C · NGO & COMMUNITY

NAC26 EP054

Project SAFE: Building Prevention Before Risk Through a Community-Based Sexual Health Education Framework for HIV Prevention Among Malaysian Youth

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NAC26 EP062

One Stop Centre: An Integrated Community-Led Ecosystem Linking Outreach, Harm Reduction, Clinical Care and Psychosocial Support for Key Populations in Malaysia

Ming Yun Tong
Tien Wei Long, Wan Mohd Ridwan W Mohd Yusoff
PT Foundation

COMMUNITY-LED INTERVENTION · NGO TRACK

ONE STOP CENTRE : AN INTEGRATED COMMUNITY-LED ECOSYSTEM LINKING OUTREACH, HARM REDUCTION, CLINICAL CARE AND PSYCHOSOCIAL SUPPORT FOR KEY POPULATIONS IN MALAYSIA

ABSTRACT ID
NAC26EP062
E-POSTER · NAC 2026

Ano Tong, Justin Tien, Wan Mohd Ridwan | PT Foundation, Kuala Lumpur & Selangor, Malaysia

INTRODUCTION

Key populations in Malaysia face **fragmented care**: outreach, testing, harm reduction, clinical treatment and psychosocial support are delivered by separate providers, driving loss-to-follow-up between diagnosis and treatment. In Kuala Lumpur and Putrajaya, **61.5%** of people living with HIV (PLHIV) were late presenters (Rahman et al., 2022); a Selangor study reported **60%** (Ahmad et al., 2024) — against a national figure of over 50%. PT Foundation (est. 1987) responds with an integrated, peer-driven **"One Stop Centre"** ecosystem across the Klang Valley.

OBJECTIVES

01 To describe PT Foundation's integrated One Stop Centre ecosystem — a community-led model linking prevention, clinical care, psychosocial support and housing reintegration.

02 To present its first-year (2025) outcomes across the Kuala Lumpur and Selangor (Lembah Klang) area.

METHODOLOGY

The ecosystem structurally links five community-led programmes — **DHSKP/JomTest** (HIV/STI screening, PrEP/PEP linkage), **ComRed** (drug use harm reduction), **Positive Living** (PLHIV psychosocial support), **Inap PT Shelter** (crisis accommodation) and **Cinta Manis** (housing reintegration) — with the **Community Healthcare Clinic (CHCC)**, PT Foundation's subsidiary social enterprise providing diagnosis, treatment and monitoring.

Bi-directional referral pathways connect all components, supported by external partners **MOH, GPs, MAIWP and Baitulmal**. Services are delivered by community healthcare workers, peer navigators and peer facilitators drawn from the communities served. 2025 programme monitoring data were reviewed.

COMPONENT	ROLE IN THE ECOSYSTEM
DHSKP / JomTest	Community entry point — free HIV, syphilis & HCV screening, mobile outreach, PrEP/PEP linkage
ComRed	Harm reduction for people who use drugs (chemsex) — safer-use education, referrals, social support
CHCC (subsidiary)	Clinical layer — intake, sexual health services, HIV treatment & monitoring
Positive Living	Holistic PLHIV support — adherence, mental health, empowerment
Inap PT Selter	Temporary crisis accommodation (MAIWP-funded transit housing)
Cinta Manis	Rental housing project — transition to stable, independent living

FIGURE 1 · BI-DIRECTIONAL REFERRAL PATHWAY

Every component both refers out and receives referrals. Read each row as **"refers clients to →"**; a filled cell marks an active referral pathway.

REFERS TO → / ↓ FROM	DHSKP JomTest	ComRed	CHCC	Positive Living	Inap PT Shelter	Cinta Manis
DHSKP / JomTest	–	●	●	●	●	—
ComRed	●	–	●	●	●	—
CHCC (clinical)	●	●	–	●	●	—
Positive Living	—	●	●	–	●	—
Inap PT Shelter	—	●	●	●	–	●
Cinta Manis	Endpoint of the pathway — receives from Inap PT Shelter					–

■ Screening / clinical entry refers out ■ Support / shelter refers out — no direct pathway

ILLUSTRATIVE CLIENT JOURNEY THROUGH THE ECOSYSTEM

Outreach & screening (JomTest · ComRed) ⇄ Clinical care (CHCC · MOH · GPs) ⇄ Support & shelter (Positive Living · Inap) → Independent living (Cinta Manis)

External partners: MOH · GPs · MAIWP · Baitulmal — enabling clinical, shelter and financial-assistance linkage. All arrows are bi-directional: clients move between components without leaving PT Foundation's network.

RESULTS

3,153 MSM clients screened (DHSKP/JomTest)
1,586 referred for PrEP (50.3% of clients)
774 PLHIV supported (200 active, Dec 2025)
112 newly enrolled in harm reduction (ComRed)
11 → 2 sheltered → moved to independent housing

CHART 1 · SCREENING REACTIVITY & LINKAGE TO CARE (n=3,153)

SCREEN	REACTIVE RESULTS	LINKED TO CARE — BARS ON A 0–100% SCALE
HIV	83 reactive 2.7% reactivity	94%
Syphilis	99 reactive 3.6% reactivity	88%
Hepatitis C	9 reactive 0.4% reactivity	100%

Reactivity is shown as a value only (0.4–3.6%); bars encode linkage to care alone.

CHART 2 · CHCC CLINICAL OUTPUTS, 2025 (CLIENTS)



DISCUSSION

In its first year of full operation, the ecosystem reached over **3,000 individuals** through community testing and linked half of them to PrEP, showing that a community-based organisation can hold the whole care pathway — prevention, diagnosis, treatment, psychosocial support, crisis shelter and housing — inside one trusted, peer-led network. Reactive clients were linked to care at **88–100%** across HIV, syphilis and hepatitis C, indicating that structural linkage, not referral advice alone, is what closes the gap between screening and treatment for late-presenting key populations.

CONSTRAINTS IDENTIFIED

Donor dependence — programmes end with their funding cycle, disrupting continuity mid-pathway

Staff capacity — peer navigators and community health workers stretched against demand

Stigma — persistent barrier to outreach, testing uptake and open care-seeking

Data systems — referrals tracked informally; cross-linkage likely under-captured



CONCLUSION

A community-led organisation can consolidate the full pathway from HIV prevention to independent living within one trusted network. Donor-dependent funding, staff capacity, stigma and cross-referral tracking gaps remain constraints; a **centralised unique-client tracking system** is the next priority, enabling measurement of cross-component linkage and retention rather than programme-level output alone. The One Stop Centre offers a **replicable framework** for community-based organisations serving Malaysia's key populations.

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NAC26 EP075

Stigma and Discrimination in HIV Care: Experiences of People Living with HIV in a Malaysian Public Hospital

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STIGMA AND DISCRIMINATION IN HIV CARE: EXPERIENCES OF PEOPLE LIVING WITH HIV IN A MALAYSIAN PUBLIC HOSPITAL

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INTRODUCTION

- HIV-related stigma remains a barrier to psychological well-being, trust in healthcare providers and continued treatment engagement (Armoon et al., 2022).
- Stigma in healthcare may occur through judgmental communication, insensitive treatment and compromised confidentiality (Saki et al., 2015).
- Patient-centred evidence on lived experiences of HIV stigma in Malaysian public hospitals remains limited (Earnshaw et al., 2023).

OBJECTIVE

To explore experiences of stigma and discrimination among PLHIV receiving treatment in a Malaysian public hospital and examine the role of social support in promoting resilience and treatment engagement.

METHODOLOGY

DESIGN
Exploratory qualitative study

SETTING
Specialist Clinic and Ambulatory Care Centre, Hospital Kuala Lumpur

SAMPLING
Purposive sampling
13 PLHIV interviewed
10 transcripts analysed

DATA COLLECTION
Face-to-face semi-structured interviews
Audio recordings - field notes

ANALYSIS
Six-phase thematic analysis
(Braun & Clarke, 2006)

TRUSTWORTHINESS
Member checking - audit trail - peer debriefing
Reflexivity - external review
(Korstjens & Moser, 2018)

ETHICS
NMRR ID-23-02426-POK - MREC approval
Written consent - confidentiality maintained

RESULTS

PARTICIPANT CHARACTERISTICS
n = 10 • All male • 24–45 years • Malay, Chinese and Indian • HIV diagnosis: 6 months–8 years

INTERPERSONAL STIGMA
Judgmental communication
Insensitive treatment
Compromised privacy
"The nurse spoke to me harshly." — P5

STRUCTURAL STIGMA
Disclosure-related procedures
Institutional barriers
Information-system gaps
"I was afraid to disclose it... it might become an issue at work." — P10

INTERNALISED STIGMA
Shame and self-blame
Emotional distress
Healthcare avoidance
"I avoided treatment for six months... afraid of being scolded again." — P2

SOCIAL STIGMA
Moral stereotyping - HIV misconceptions - Fear of rejection
"Many people think HIV spreads through touch or air." — P6

SUPPORT, RESILIENCE AND COPING
Empathetic providers - Family and NGO support
Self-acceptance
"My family gave me a lot of strength." — P7

Participant quotations were translated from Malay.

DISCUSSION

- **Interpersonal stigma:** Judgmental care undermined patients' dignity and trust *(Saki et al., 2015)*.
- **Structural stigma:** Privacy gaps increased the risk of unwanted disclosure *(Mulubale et al., 2022)*.
- **Internalised stigma:** Shame and self-blame contributed to withdrawal and healthcare avoidance *(Kumwenda et al., 2023)*.
- **Social stigma:** Moral stereotypes and HIV misconceptions reinforced concealment and fear of rejection *(Fauk et al., 2021)*.
- **Support, resilience and coping:** Provider, family and NGO support strengthened resilience and treatment engagement *(Armoon et al., 2022)*.

CONCLUSION

- HIV stigma is a multidimensional experience affecting patients' dignity, psychological well-being and treatment engagement.
- Support from healthcare providers, families and NGOs strengthens resilience and continued treatment engagement.
- Empathy-focused training, stronger confidentiality practices and integrated psychosocial support are essential for patient-centred HIV care.
- Future multi-site studies should include more diverse participants and healthcare providers' perspectives.

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