

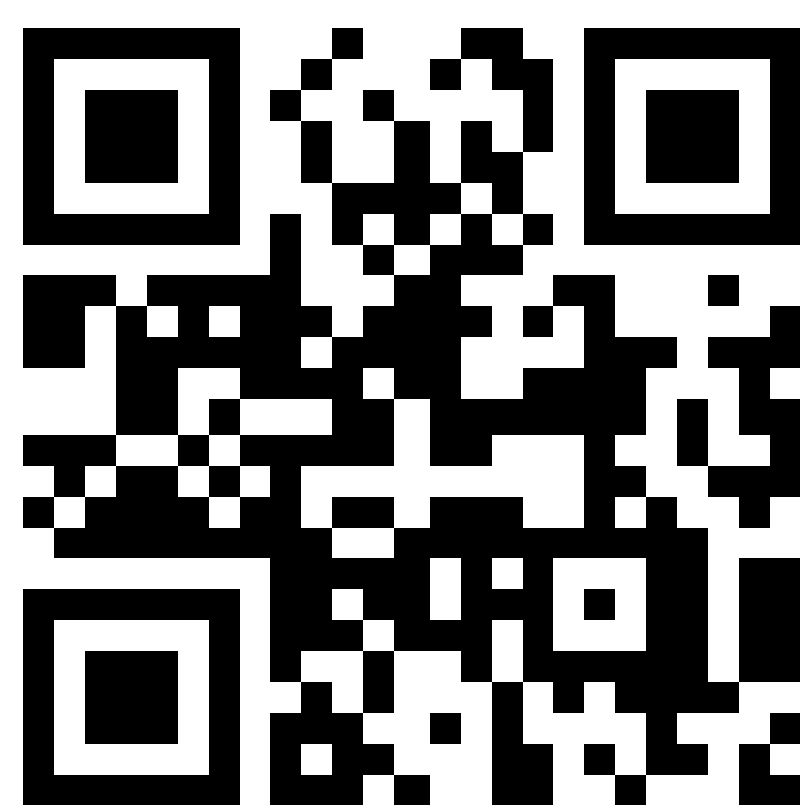
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Characteristics of clients with sexually transmitted infections and HIV coinfection in same-day antiretroviral therapy cohort in Bangkok, Thailand

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HIV-positive MSM and trans women are disproportionately affected by syphilis in Same-day ART Cohort in Bangkok, Thailand



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Background

Sexually transmitted infections (STIs) such as syphilis and hepatitis have a well-known association with HIV diagnosis. Although mostly asymptomatic or mildly symptomatic, clinical signs or symptoms of these STIs could be a main reason for bringing individuals forward for HIV testing. In this study, we explored factors associated with STI coinfection among HIV-positive clients who accessed same-day antiretroviral therapy (SDART) services at the largest HIV testing clinic in Bangkok, Thailand.

Methods

Data were collected during July 2017–April 2019 from SDART clients at the Thai Red Cross Anonymous Clinic. Clients were asked to choose at least one of the following reasons for accessing HIV testing: (1) condomless sex, (2) having partners with high-risk behaviors, (3) purchasing sex, (4) selling sex, (5) suspected symptoms of acute HIV infection or other STIs, including syphilis and hepatitis, (6) abnormal blood tests from elsewhere, (7) injecting drugs. Logistic regression models were carried out to determine factors relating to STI co-infections.

Results

Of 3,454 HIV-positive clients (68.1% were men who have sex with men [MSM], 4.19 transgender women, and 27% general population) who were entered into the SDART cohort, 78.5% initiated ART on the same day as the HIV diagnosis, and an additional 16.9% started ART within the next seven days (Table 1). Syphilis was the most common STI coinfection (20.1%; 24.76% MSM, 25.3% trans women, and 2.09% general population, $p < 0.001$), followed by hepatitis C (3.1%; 3.59% MSM, 0.30% trans women, and 1.69% general population, $p = 0.030$) (Table 2). In the multivariable model, being a man who has sex with men (OR 5.33, 95%CI 2.79–10.21, $p < 0.001$) or being a trans woman (OR 3.16, 95%CI 1.22–8.21, $p = 0.018$) increased the risk of syphilis (Table 2).

Table 1
Characteristics of sample at baseline (N=3454)

Characteristics	N (%)
Gender	
MSM/Queer	1,891 (70.2)
Transgender women	151 (5.6)
General population	653 (24.2)
Age (years)	
Minimum, Maximum	1,484
Median (IQR)	28 (24–35)
Age group	
<25 years old	1,034 (30)
25–35 years old	1,590 (46)
>35 years old	830 (24)
Education	
Number of responses	1,819
Less than bachelor's degree	888 (48.8)
Bachelor's degree or higher	931 (51.2)
Monthly income	
Number of responses	1,891
≤10,000 THB	389 (20.6)
>10,000 THB	1,502 (79.4)
Syphilis (TPHA/RPR)	
Number tested	2,880
Non-reactive	2,297 (79.8)
Reactive	583 (20.2)
HBsAg	
Number tested	2,774
Negative	2,602 (93.8)
Positive	172 (6.2)
Anti-HCV	
Number tested	2,745
Negative	2,647 (96.4)
Positive	98 (3.6)

Table 2
Factors associated with syphilis co-infection among HIV-positive clients

Factors	Univariate model			Multivariable model		
	OR	95% CI	P-value	Adj. OR	95% CI	P-value
Gender*						
MSM/Queer	5.45	3.89–7.65	<0.001	5.33	2.79–10.21	<0.001
TGW	5.52	3.41–8.94	<0.001	3.16	1.22–8.21	0.018
Heterosexual	Ref.			Ref.		
Age groups*						
<25 years old	1.72	1.32–2.25	<0.001	2.18	1.24–3.83	0.007
25–35 years old	1.52	1.18–1.97	0.001	1.71	0.99–2.96	0.06
>35 years old	Ref.			Ref.		
Sex worker*						
No	Ref.			Ref.		
Yes	2.85	0.8–10.22	0.11	4.58	1.07–19.69	0.041
Reported unprotected sex*						
No	Ref.			Ref.		
Yes	1.3	0.91–1.85	0.15	1.25	0.85–1.83	0.26
Partner has sexual risk behaviors*						
No	Ref.			Ref.		
Yes	0.6	0.32–1.12	0.11	0.55	0.29–1.07	0.08
Partner is HIV positive*						
No	Ref.			Ref.		
Yes	0.65	0.37–1.15	0.14	0.81	0.44–1.48	0.49
Has sex with sex workers						
No	Ref.					
Yes	4.23	0.26–67.98	0.31			
People who inject drugs*						
No	Ref.			Ref.		
Yes	8.51	0.77–94.42	0.08	7.2	0.63–82.41	0.11
Has symptoms of HIV infection*						
No	Ref.			Ref.		
Yes	1.94	1.2–3.13	0.006	1.91	1.15–3.17	0.013

* indicates variables that were selected into multivariable model (p -value ≤ 0.20)

Conclusions

Almost one-fifth of clients initiating ART in the clinic were coinfecting with syphilis. HIV-positive MSM and trans women were disproportionately affected by syphilis. Screening for STIs should always be integrated into ART initiation services, especially for MSM, trans women, and those who present with abnormal symptoms. Not doing so will result in a missed opportunity to test and treat other STIs.

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