

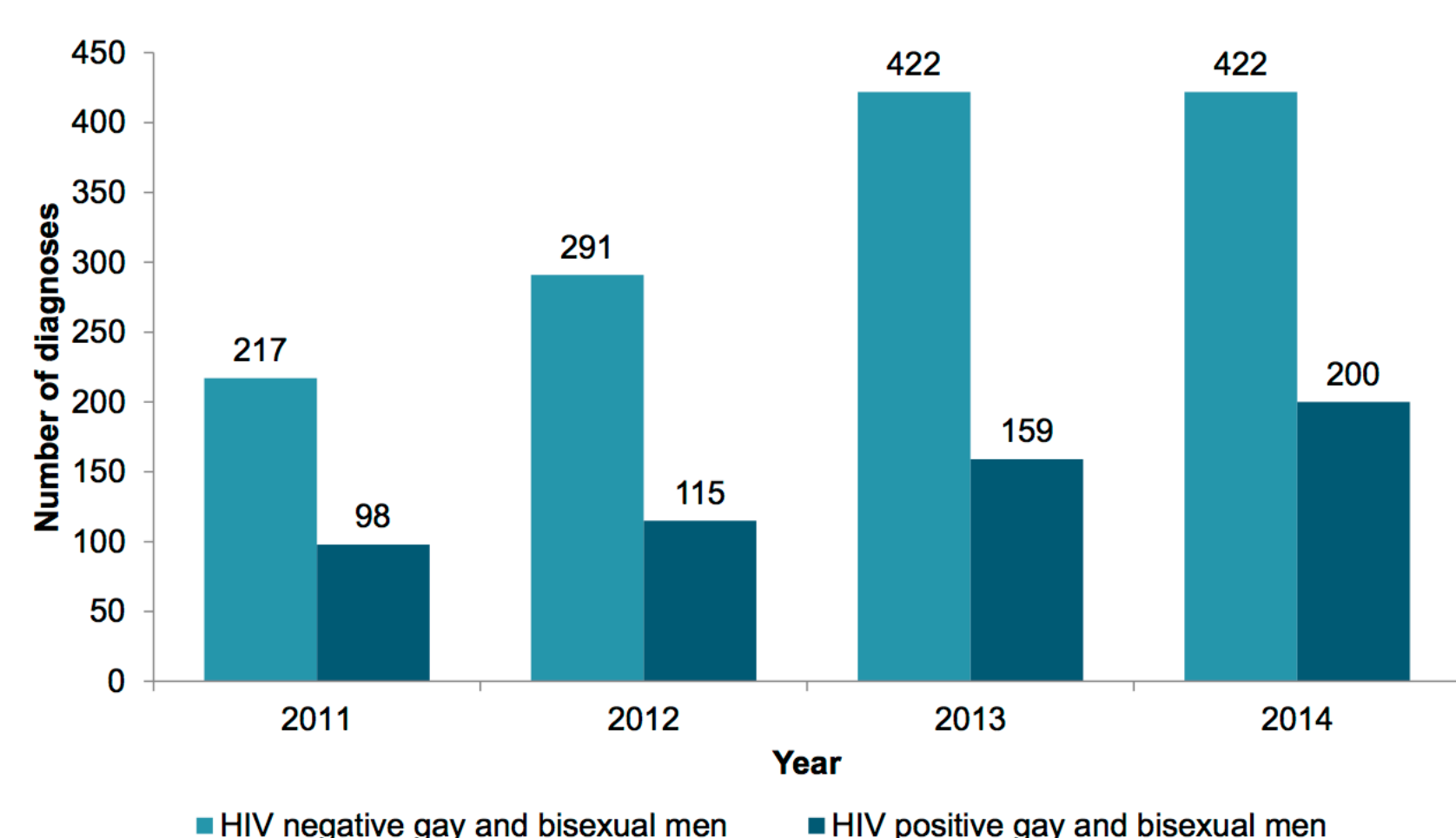
Assessment of the Incidence and Time to Treatment of STIs in a HIV-Positive MSM Cohort from a Tertiary HIV Service

Macauley T¹, Vujovic O¹, Hoy J¹

¹Department of Infectious Diseases, Alfred Health and Monash University

Background

- Rates of syphilis and other sexually transmitted infections (STIs) have increased significantly in Victoria over the past five to ten years, predominantly in men who have sex with men (MSM).



Infectious syphilis diagnoses among HIV positive and HIV negative gay and bisexual men attending sexual health clinics, 2011-2014¹

- Undiagnosed and untreated STIs are the source of continuing transmission. The time to laboratory diagnosis of infection and time to treatment of these infections is critical to minimizing new infections.
- STIGMA STI screening guidelines recommend that men who are HIV-positive be tested for syphilis, chlamydia and gonorrhoea up to 4 times a year, typically in conjunction with CD4 and HIV viral load testing.²

Aims

To assess the:

- STI screening rate in MSM attending an HIV ambulatory care clinic in 2015
- Incidence of STIs (syphilis, chlamydia, and gonorrhoea) in 2015
- Time to laboratory diagnosis of STIs
- Time to treatment of STIs
- Changes in HIV viral loads in the setting of active syphilis infection

Methods

- Study Population:** HIV positive MSM, whose primary HIV care was provided through The Alfred Hospital Infectious Diseases Clinic. Active management was defined as having had 2 or more HIV viral load tests performed at Alfred Pathology in the 2015 calendar year.
- Study Design:** Retrospective cohort study.
- Data Collection:** The Victorian HIV Database was used to identify the MSM population managed at The Alfred Hospital and obtain demographic data, results and dates of HIV viral load tests, syphilis serology, and chlamydia and gonorrhoea NAAT results. Clinical information regarding the timing of treatment for STIs was extracted from The Alfred's electronic medical records.

Results

- Sample size** = 584 MSM managed during 2015
- Median age** = 53 (IQR 45-60) years
- Study period** = 01/01/2015 – 31/12/2015

STI Screening Frequency

	Screening frequency of patients in 2015		
	0 tests	1 test	2 or more tests
Syphilis Serology	120 (20%)	162 (28%)	302 (52%)
STI screen	342 (59%)	132 (23%)	110 (18%)

STI screen includes urine and rectal swab for chlamydia and gonorrhoea PCR

Time to Diagnosis and Treatment

	Number of cases n, % patients	Time to Diagnosis (Median, (IQR)) (Range) days	Time to Treatment (Median, (IQR)) (Range) days
Syphilis	22 cases in 22 patients (3.8%)	1.5 (IQR 1-7)	3 (IQR 1-9) (0-58)
Gonorrhoea	17 cases in 13 patients (2.2%) 1 urethral, 16 rectal	3 (IQR 2-5)	5 (IQR 3-9) (0-154)
Chlamydia	15 cases in 11 patients, (1.9%) 6 urethral, 9 rectal	3 (IQR 2-5)	4 (IQR 3-6) (0-12)

- Delay in treatment was defined as no treatment for more than 5 days from laboratory diagnosis.
- This occurred in 7/22 (31.8%) of syphilis cases and 10/32 (31.3%) of gonorrhoea and chlamydia infections.

Reasons for delay in treatment

	Syphilis N = 7 (31.8%)	Chlamydia and gonorrhoea N = 10 (31.3%)
No reason documented	4 (57.1%)	7 (70.0%)
Unable to contact patient	2 (28.6%)	2 (20.0%)
Further testing required	1 (14.3%)	
Result not actioned		1 (10.0%)

Viral load tests and syphilis infections

HIV viral load (VL) at time of syphilis diagnosis	Number of patients (%)
HIV viral load ≤20 copies/ml	12 (63%)
HIV VL between 21 and 200 Copies/ml	4 (21%)
HIV VL >200 copies/ml	3 (16%)

- Of the 22 patients diagnosed with syphilis, 3 patients had syphilis and HIV diagnosed at the same time (excluded from table above), the remaining 19 were on ART at the time of syphilis diagnosis.
- The syphilis serology test diagnostic of new infection was performed simultaneously with HIV VL testing in these 19 patients.
- Of the 3 patients with HIV VL >200 copies/ml, 1 (5.3%) had experienced virologic rebound, whilst 2 (10.5%) had detectable viral loads (70 and 204) at their last test.

Conclusions

- Barriers to asymptomatic STI screening during routine HIV clinic reviews need to be identified to improve the rates of screening in HIV positive MSM.
- Systems put in place to improve syphilis serology testing have been successful – new approaches to pharyngeal, urine and rectal screening have been initiated in 2016.
- There were no significant delays in the laboratory diagnosis, or the time to treatment of STIs diagnosed through asymptomatic STI screening in the majority of patients.
- The major barrier to earlier treatment was the inability to contact patients. This study has prompted a review of patient contact detail registration at The Alfred Hospital's Infectious Diseases Clinic.