

# The Prevalence and Associated Risk Factors of Anal Intraepithelial Neoplasia and Anal Cancer Among People Living With HIV Attending Northern NSW Sexual Health Services, 2008-2019

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## Background

- The prevalence of anal high-grade squamous intraepithelial lesions(HSIL) among HIV-infected people are high. Anal HSILs are considered precursors to invasive anal squamous cell carcinomas. The incidence of anal cancer is still increasing in People living with HIV (PLWHIV) in Australia.
- Information about the prevalence of anal intraepithelial neoplasia (AIN) and anal cancer (AC) among PLWHIV in Northern NSW is sparse. This study aimed to determine the prevalence and associated factors of AIN and AC among PLWHIV attending Northern-NSW Sexual Health Services (NNSW-SHSs).

## Methods

- A retrospective multisite study was conducted to review medical records of 377 PLWHIV attending NNSW-SHSs and detail characteristics of AIN or AC cases during 2008-2019 period. Data were analyzed by SPSS using descriptive analysis.

## Results

- 25 cases were identified [ AIN (17),AC (8)] with the prevalence of 6.63%.
- Mean age of patients was 54.5 ±7.1 years (45-72)
- 19 (76%) were primarily diagnosed at NNSW-SHSs.
- 80% presented with symptoms including rectal bleeding (29%), genital warts (32%), and anal lumps (16.7%).
- HIV status at the time of diagnosis: All undetectable HIV, 68% CD4 cells > 500
- On referral day, DARE reported lumps, polyps or thickening [8(32%)], genital warts with dysplastic appearance [8 (32%)], and ulcers [3 (12 %)]. Dysplasia was predicted in 17 (68%).
- One out of 8 anal cancer cases died

**Table 1: Characteristic of PLWHIV diagnosed with AIN or Anal cancer, NNSW-SHSs, 2008 -2019.**

	AIN		AC		Total	
	N =17	68%	N=8	32%	N=25	100%
<b>Age</b>						
40-60	15	60%	6	24%	21	84%
>60	2	8%	2	8%	4	16%
<b>Gender</b>						
Male	16	64%	8	32%	24	96%
Female	1	4%	0	0	1	4%
<b>Sexual practice</b>						
Homosexual	14	56%	4	16%	18	72%
Bisexual	1	4%	3	12%	4	16%
Heterosexual	2	8%	1	4%	3	12%
<b>CD4 Count at diagnosis of dysplasia</b>						
<200	2	8%	1	4%	3	12%
200-500	1	4%	4	16%	5	20%
>500	14	56%	3	12%	17	68%
<b>Clinical Presentation</b>						
Asymptomatic	3	12%	1	4%	4	16%
Symptomatic	13	52%	7	28%	20	80%
No information	1	4%	0	0	1	4%
<b>Smoking</b>						
Current smoker	8	32%	5	20%	13	52%
Never smoked	3	12%	1	4%	4	16%
Ex-smoker	6	24%	2	8%	8	32%
<b>History HPV associated cancer</b>						
Yes	1	4%	0	0	1	4%
No	16	64%	8	32%	24	96%
<b>Ever offered screening DARE previously</b>						
Yes	11	44%	5	20%	16	64%
No	4	16%	1	4%	5	20%
No information	2	8%	2	8%	4	16%

## Conclusion

- Most individuals with anal dysplasia complained of symptoms.
- DARE has been conducted as a screening tool for PLWHIV at NNSW-SHSs