

Supplementary table 1. Number of included tissue samples of HIV-negative men (A) en HIV-negative women (B), including age at biopsy, anatomical location, HIV status, and risk factors per histological category

**A.**

**HIV-negative men**

Histological category	Subtotal	Age at biopsy, years	Anatomical location			Risk factors						
			Anal canal	Peri-anal	Not provided	HIV		MSM	SOTR	Other systemic immunosupp.	IBD	Not reported/ no risk factor
						neg	presumed neg					
Normal	15	53 [46-69]	12	3	0	15	0	10	0	2	0	3
AIN1	38	44.5 [29-54]	36	2	0	38	0	22	2	3	0	11
AIN2	11	52 [45-60]	10	1	0	11	0	8	0	1	0	2
AIN3	9	63 [52-68]	8	1	0	9	0	5	0	1	0	3
SCC	18	56.5 [51-65]	5	10	3	18	0	1	2	1	1	13
<b>Total</b>	<b>91</b>	<b>52 [41-62]</b>	<b>71</b>	<b>17</b>	<b>3</b>	<b>91</b>	<b>0</b>	<b>46</b>	<b>4</b>	<b>8</b>	<b>1</b>	<b>32</b>

**B.**

**HIV-negative women**

Histological category	Subtotal	Age at biopsy, years	Anatomical location			Risk factors												
			Anal canal	Peri-anal	Not provided	HIV		cervical (pre-) cancer	vulvar (pre-) cancer	vulvar + cervical (pre-)cancer	SOTR	SOTR + cervical/ vulvar (pre-) cancer	Other systemic immunosupp.	cervical (pre-) cancer + other systemic immunosupp.	IBD	IBD + cervical (pre-) cancer	Not reported/ no risk factor	
						neg	presumed neg											
Normal	15	61 [46-67]	12	3	0	15	0	4	2	2	0	0	0	0	1	1	1	4
AIN1	19	49 [41-57]	16	3	0	19	0	4	1	4	0	2	2	0	1	1	1	4
AIN2	10	44 [39-58]	5	5	0	10	0	2	3	2	0	1	1	0	0	0	0	1
AIN3	19	52 [4-62]	9	10	0	19	0	2	6	4	0	2	0	1	1	0	0	3
SCC	22	58.5 [44-77]	7	12	3	4	18	0	3	2	0	0	0	0	1	0	0	16
<b>Total</b>	<b>85</b>	<b>52 [44-65]</b>	<b>49</b>	<b>33</b>	<b>3</b>	<b>67</b>	<b>18</b>	<b>12</b>	<b>15</b>	<b>14</b>	<b>0</b>	<b>5</b>	<b>3</b>	<b>2</b>	<b>4</b>	<b>2</b>	<b>2</b>	<b>28</b>

Data are n, numbers or median [IQR]. Numbers represent samples. Consequently, patients with multiple sample can be represented in multiple categories. Abbreviations: Normal: normal control samples; AIN: anal intraepithelial neoplasia (grades 1-3); HIV-neg: HIV-negative; IBD: Inflammatory Bowel Disease (Crohn's disease or ulcerative colitis); immunosupp.: immunosuppressants; SCC: anal squamous cell carcinoma; SOTR: solid organ transplantation recipient.