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## INTRODUCTION

- Since the advent of combined antiretroviral therapy, and associated marked survival prolongation among people living with HIV (PLWH), the incidence of non-AIDS-defining cancers (non-ADCs) among PLWH is rising.
- Against this, the prevalence of HIV among patients with non-ADC is largely unknown, as data on HIV screening among these patients are sparse.
- We previously described HIV testing rates of <5% among non-ADC patients attending our tertiary oncology centre, where local HIV prevalence is 0.4% [1].
- Since then, we have collaborated with the Service of Oncology and organised seminars to inform oncologists about HIV trends in non-ADCs and the importance of HIV testing.
- We conducted a 2-month pilot study to determine whether it was feasible to Investigate Barriers in HIV-Testing Oncology Patients (IBITOP) among treating oncologists and their patients [2].
- Having established feasibility, we now present the results of Phase I of the IBITOP study, performed when national HIV testing recommendations made no mention of HIV-testing patients of unknown HIV status with non-ADCs [3].

## METHODS

- Phase I of the IBITOP study was conducted between 1<sup>st</sup> July and 31<sup>st</sup> October 2013.
- Patients aged ≥18 years of unknown HIV status, newly diagnosed with solid-organ non-AIDS-defining cancer (non-ADC), and presenting for treatment at the tertiary oncology service of Lausanne University Hospital (LUH), Lausanne, Switzerland, were invited to participate.
- Recruited patients were informed about the potential impact of HIV status on treatment strategies and offered HIV testing as part of their initial oncology work-up. Patients unable to give informed consent to participate were excluded from the study; those of known HIV-positive status excluded from testing.
- Oncologist testing proposal rate and patient acceptance were the primary endpoints; HIV seroprevalence in this population was a secondary endpoint.
- Data are presented as means (SD), or as percentages. Proportions were compared using the Chi squared test. All statistical analyses were performed using Microsoft Excel 2008 (Microsoft Corporation, Redmond, WA).

## RESULTS

- Of 251 patients, 239 were eligible for study inclusion (Figure 1): mean age was 62 years (SD 11); 51% were men and 70% were Swiss.
- HIV test proposal and test acceptance rates are shown in Figure 1. Of 196 patients not offered HIV testing, 21 had been tested at cancer diagnosis, prior to oncology referral, meaning that 218 patients of the 239 included in the study were of unknown HIV status (Figure 1).
- Of 39 patients offered and accepting HIV testing, 36 were subsequently tested (Figure 1), giving a total testing rate of 16.5% of patients of unknown HIV status (36/218).
- The reasons for not proposing HIV testing, when documented, are shown in Table 1.
- Four patients were of known HIV-positive status and so excluded from test proposal (Figure 1); of patients HIV-tested, either prior to oncology referral or as part of the IBITOP study, none had a reactive test.

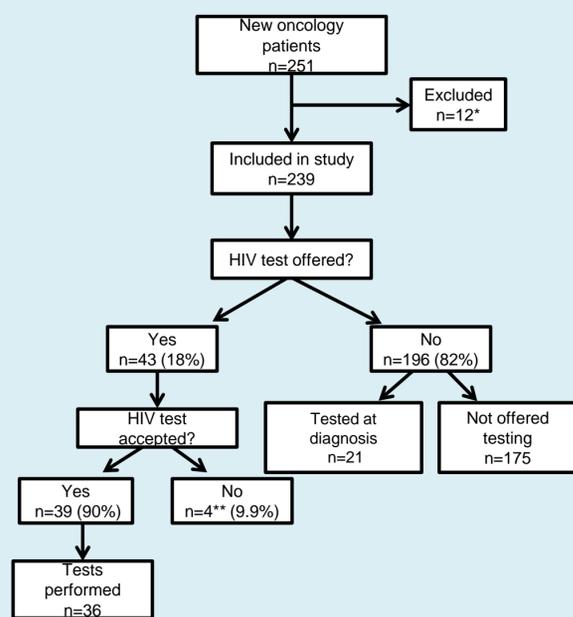


Figure 1: Flowchart demonstrating HIV test proposal (by oncologists) and test acceptance (by patients).

\*AIDS-defining cancers n=8; known HIV-positive n=4

\*\*self-perceived as not at risk, n=3; not interested, n=1

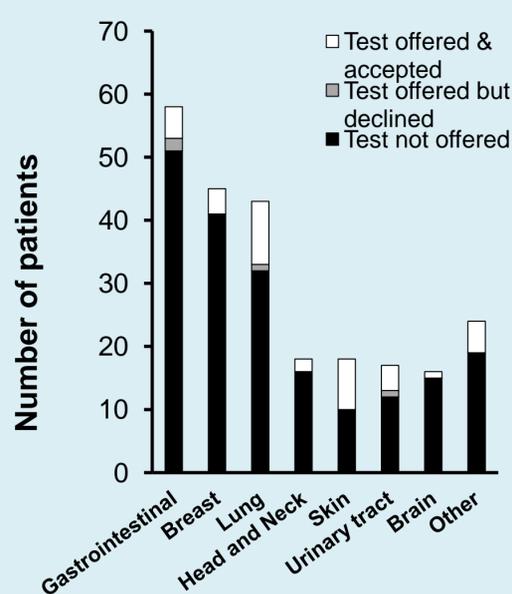


Figure 2: HIV test proposal and test acceptance by cancer diagnosis. 'Other' cancers comprise sarcoma, testicular, ovarian, endometrial, neuroendocrine and thymus. There was no significant difference in proposal / acceptance rate between cancer group.

HIV tests not offered / total (%)	196/239 (82%)
No reason given	147 (75%)
HIV test already done	21 (11%)
Patient followed elsewhere	10 (5.1%)
Patient with cognitive difficulties	5 (2.6%)
No time	4 (2.0%)
Difficult doctor-patient relationship	2 (1%)
Patient died	2 (1%)
No blood test planned	2 (1%)
Patient under palliative care	1 (0.5%)
Patient not at risk	1 (0.5%)
Doctor forgot to mention study	1 (0.5%)

Table 1: Reasons for not proposing HIV testing as given by treating oncologists.

## CONCLUSION

- In this study, 16.5% of patients of unknown HIV status were offered testing. Although the resulting testing rate was over 3-fold higher than rates observed previously in this service, this testing rate, particularly in the light of emerging links between HIV infection and certain non-ADCs, is unsatisfactorily low.
- The majority of patients accepted testing when offered.
- Our preliminary results suggest that HIV prevalence in our cancer patient population is low. However, as HIV-positive status impacts on the medical management of cancer patients, we recommend that HIV screening be performed in settings where HIV prevalence is >0.1%.
- Phase II of the IBITOP study is now underway to explore barriers to HIV screening among oncologists and patients following the updated national HIV testing guidelines which recommend testing in non-ADC patients undergoing chemotherapy.

## REFERENCES

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