Health status and Quality of life in people living with HIV (PLWH): results from the ICONA cohort.

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BACKGROUND

A patient reported outcome (PRO) is defined as any report of an outcome that comes directly from the patient without interpretation of the patient's response by a clinician or anyone else. In clinical trials, PRO instruments can be used to measure the effect of a medical intervention on one or more concepts such as symptoms, functioning, severity of disease, health status and quality of life (QoL).

As HIV became a chronic condition, there is a strong case for evaluating the impact of antiretroviral therapies on broader aspects of patient's lives, including psychological health and emotional adjustment. This is particularly true in a cohort setting such ICONA. Until recently, no measures of patient-reported outcomes had been included in ICONA.

AIMS

To determine the impact of HIV infection and its treatment on QoL and health status in HIV-infected patients enrolled in ICONA.

STUDY DESIGN AND METHODS

The ICONA foundation study cohort is an observational multicentre cohort of individuals infected with HIV. Patients enrolled in this analysis were, newly diagnosed, pre-treatment patients, and those with >6 months of cART.

Measures were administered consecutively from March 2017 to March 2018.

EQ-5D-3L is a generic measure of health status developed by the EuroQol group [12] which provides a simple descriptive health status profile (descriptive system) and a single index for health status (visual analogue scale) The visual analogue scale ranges from 0 (the worst health you can imagine) to 100 (the best health you can imagine). Participants are asked to rate their current health ('today') using the scale and then asked to write the number in the box provided. The current analysis used the EQ VAS only.

HIVDQoL: Following the template of the ADDQoL for diabetes[13,14] the HIVDQoL questionnaire is a condition-specific, individualised, measure of the impact of HIV on an individual's QoL [15] It includes two overview items plus 26 condition-specific domain items. The first overview items ask participants to rate their generic 'present QoL' using a 7-point Likert scale, ranging from 3 (excellent) to -3 (extremely bad). The present analysis includes data from the overview generic 'present QoL' item only (see Figure 1). 'Quality of life' is defined in the questionnaire instructions as 'how good or bad you feel your life to be'.

Analyses included non-parametric tests of difference and correlational analyses.

	In general, my present quality of life is:						
	3	2	1	0	-1	-2	-3
	excellent	very good	good	neither good nor bad	bad	very bad	extremely bad

Figure 1: HIVDQoL Overview Item 1: Present Quality of Life *(scoring for demonstration purposes only)*

RESULTS

Baseline data from 135 participants were available. This included 122 men (mean age 42.97 [11.99]) and 13 women (mean age 47.46 [14.32]). A total of 107 patients were on cART (NNSTI: N=66; NNRTI: N=23; PI: N=15/r-based regimen) and 28 patients were pre-treatment. cART status details are provided in Table 1 a, b, c.

Table 1a– Mode of transmission

Mode of Transmission	All Participants		On-Treatment		Pre-Treatment	
	N	Percent	N	Percent	N	Percent
Hetero	40	30	32	30	8	29
IDU	10	7	8	8	2	7
MSM	76	56	59	55	17	61
Unknown	9	7	8	8	1.00	4
Total	135	100	107	100	28	100

Table 1b – CD4+ cell count/mmc at baseline

CD4 count	All Participants		On-Treatment		Pre-Treatment	
	N	Percent	N	Percent	N	Percent
<200	12	9	7	7	5	18
200-499	34	25	25	23	9	32
>=500	85	63	74	69	11	39
Missing	4	3	1	1	3	11
Total	131	100	106	100	25	100

Table 1c – HIV-RNA/μl at baseline

HIV RNA	All Participants		On-Treatment		Pre-Treatment	
	N	Percent	N	Percent	N	Percent
<50	93	69	92	86	1	3
>=50	38	28	14	13	24	86
Missing	4	3	1	1	3	11
Total	135	100	107	100	28	100

Table 2. Health and generic quality of life scores for experienced and pre-treatment patients at baseline

	All Participants						On-Treatment						Pre-Treatment					
	N	Missing	Mean	SD	Min	Max	N	Missing	Mean	SD	Min	Max	N	Missing	Mean	SD	Min	Max
Health (EQ-5D VAS)	118	17	78.43	15.42	30	100	94	13	78.52	14.57	30	100	24	4	78.08	18.73	40	100
Generic Quality of Life (HIVDQoL)	133	2	1.06	1.34	-3	3	106	1	1.21	1.86	-3	3	27	1	0.48	1.74	-3	3

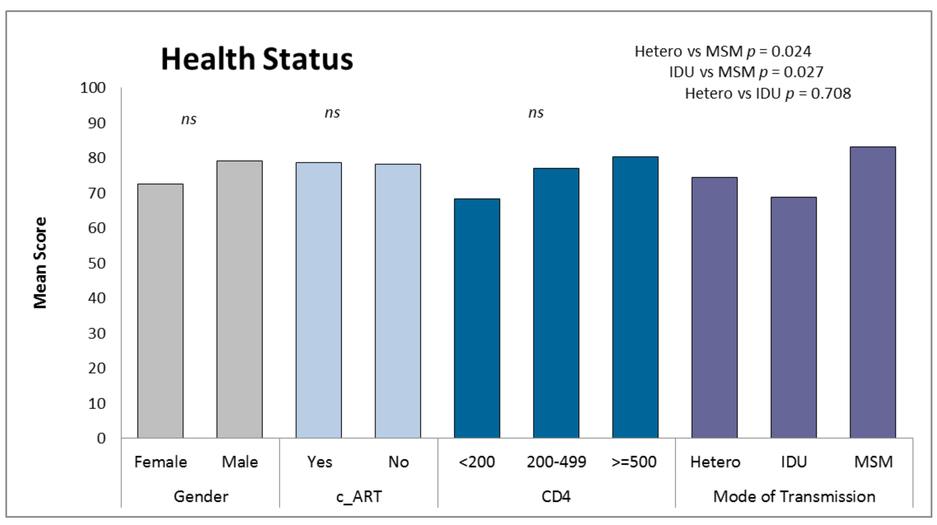


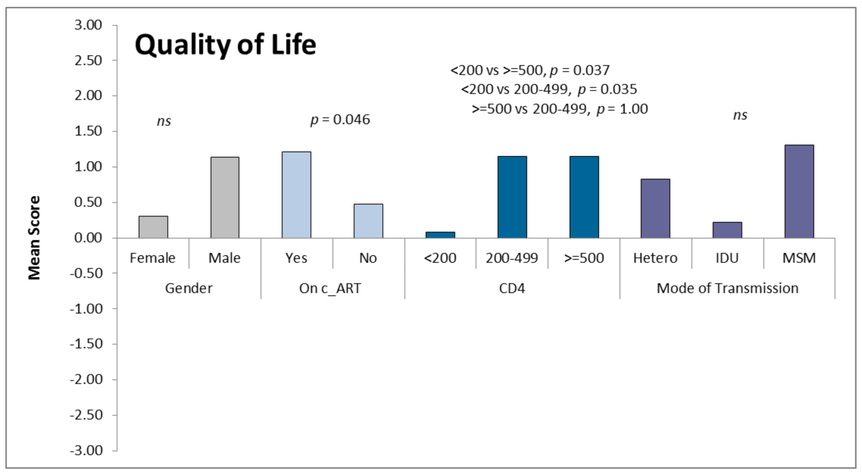
Figure 2 – Health status (EQ-5D VAS)

As shown in Table 2 health status but not QoL was found to differ by mode of transmission.

QoL but not health, was better for patients on treatment with cART (compared to the pre-treatment group) and the groups with a CD4 count >=200 versus those <200 (Figure 3).

Correlational analyses for cART-treated patients, showed age was negatively related to both quality of life (r=-0.312, p=0.001) and health (r=-0.357, p<0.001).

Figure 3: Generic quality of life (HIVDQoL)



CONCLUSIONS

Although both generic QoL and health status were worse in older (vs younger) people living with HIV, the two outcomes showed different patterns in relation to clinical variables, with cART-treated patients reporting better QoL but no difference in perceived health compared with pretreatment patients. QoL, but not perceived health, was also better in patients with CD4 counts >200. Perceived health, but not QoL, differed with mode of HIV transmission. QoL is not simply a reflection of health status and it is important to measure both outcomes

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