Abstract P212 – Table 2. Associations between risky alcohol consumption (AUDIT score ≥8) and other health and sexual behaviour variables among HIV-negative patients

	Proportion of patients reporting risky alcohol consumption (n = 25/69 (36.23%))	OR (95% CI)	*p* value	aOR (95% CI)	*p* value
Depressive symptoms (PHQ-9)					
None/mild	19/60 (31.67)	1.00		1.00	
Moderate/severe	6/9 (66.67)	4.32 (0.92 to 20.27)	0.05	3.99 (0.85 to 18.63)	0.08
Drug-related problems (DUDIT)					
No	12/43 (27.91)	1.00		1.00	
Yes	10/20 (50.00)	2.58 (0.83 to 8.05)	0.09	2.29 (0.60 to 8.76)	0.22
Chemsex					
No	12/37 (32.43)	1.00		1.00	
Yes	12/31 (38.71)	1.32 (0.48 to 3.60)	0.59	0.91 (0.25 to 3.26)	0.88

patients and evaluated the effects of socio-demographic, health and sexual behaviour factors on the risky alcohol consumption using logistic regression. All analyses accounted for other variables associated with risky alcohol consumption in univariate analyses (≤0.10).

Results: The HIV-positive and HIV-negative patients were predominantly men (92% and 94%, respectively) of white ethnicity (76% and 67%, respectively) with a median age (IQR) of 46 (39 to 53) and 40 (33 to 47), respectively. Twenty-five percent of HIV-positive and 36% of HIV-negative patients reported risky alcohol consumption. Depressive symptoms (PHQ-9 score ≥10), harmful drug use (DUDIT score men ≥6; women ≥2) and smoking were reported in 10% and 13%, 25% and 29% and 19% and 17% respectively among HIV-positive and HIV-negative patients. Among HIV-positive and HIV-negative patients 44% and 82% reported ≥3 sexual partners, 45% and 86% unprotected sex, 15% and 30% STD diagnoses and 23% and 45% chemsex participation respectively in three months preceding the survey. Majority (88%) of HIV-positive patients adhered well to ART (CASE score >10). Presence of depressive symptoms ($p < 0.001$), smoking ($p = 0.04$), harmful drug use ($p < 0.001$), chemsex participation ($p < 0.001$) and poor adherence to ART ($p = 0.01$) were associated with risky alcohol consumption among HIV-positive patients in the univariate analyses, but only depressive symptoms ($p = 0.03$) and harmful drug use ($p = 0.007$) remained significant in multivariable analyses. Among the HIV-negative patients presence of depressive symptoms and harmful drug use had borderline associations with risky alcohol consumption ($p = 0.05$ and 0.09 respectively) in univariate analyses, but in multivariable analyses these associations diminished (Table 1, 2).

Conclusions: Risky alcohol consumption was observed in a quarter of our HIV-positive participants and was associated with increased depressive disorders and harmful drug use. Among a sample of our HIV-negative patients these associations were not present.

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Health status and quality of life in PLWHIV: results from the ICONA cohort

A Cingolani[1]; J Romaine[2]; A Tavelli[3]; F Maggiolo[4]; E Girardi[5]; A Antinori[6]; A Cascio[7]; A Cattelan[8]; A De Luca[9]; M Murray[10]; A D'Arminio Monforte[11]; C Bradley[12]; on behalf of Icona Foundation Study Group

[1]Institute of Infectious Diseases, Catholic University, Roma, Italy. [2]Health Psychology Research Unit, University of London, London, UK. [3]ICONA Foundation, University of Milano, Milan, Italy. [4]Infectious Diseases, Azienda Ospedaliera S. Giovanni XXIII, Bergamo, Italy. [5]Epidemiology, National Institute for Infectious Diseases L. Spallanzani, Roma, Italy. [6]HIV/AIDS, National Institute for Infectious Diseases L. Spallanzani, Roma, Italy. [7]Infectious Diseases, AOU Policlinico P. Giaccone, Palermo, Italy. [8]Infectious Diseases, Azienda Ospedaliera Padova, Padova, Italy. [9]Infectious Diseases, University of Siena, Siena, Italy. [10]ViiV Healthcare, London, UK. [11]Infectious Diseases, University of Milano, Milano, Italy. [12]Health Psychology Research Ltd, Royal Holloway University of London, London, UK.

Background: As HIV has become a long-term condition, it is important to evaluate the impact of therapies on patient-reported outcomes (PROs). Here we report analyses of associations between clinical/demographic variables and health status and quality of life (QoL) in PLWHIV, enrolled in ICONA.

Materials and methods: The HIV-Dependent QoL (HIVDQoL) and EQ-5D-3L health status tool were administered consecutively to two groups of ICONA patients: newly diagnosed, pre-treatment patients and those with >six months of cART, from March 2017 to March 2018. The analyses focused on the HIVDQoL overview item measuring generic QoL (3 = 'excellent' to −3 = 'extremely bad') and the EQ-5D visual analogue score (EQ-VAS) measuring self-rated health (100 = 'best imaginable health state' to 0 = 'worst'). Analyses included non-parametric tests of difference and correlational analyses.

Results: One hundred and thirty-five patients were included (122 men; 13 women), mean age 43 (SD 12.25). One hundred and seven patients were on cART (NNSTI, N = 66; NNRTI, N = 23; PI, N = 15/r-based regimen). Mode of transmission included: MSM (N = 76), heterosexual (N = 40) and IDU (N = 10). Mean CD4+ was 655/mm^3 (SD 316) for those on cART and 429/mm^3 (SD 259) for patients' pre-treatment. Mean self-reported health (EQ-VAS) was 79 (SD 14.57) for cART-treated and 78 (SD 18.73) for those pre-treatment. Generic QoL (HIVDQoL item (1) mean was 1.21 (SD 1.19) (>'good' QoL) for cART-treated and 0.48 (SD 1.74) (midway between 'neither good nor bad' and 'good') for those pre-treatment. EQ-VAS health scores were found to differ by mode of transmission, with MSM reporting better health than IDU ($p = 0.022$) and those reporting heterosexual transmission ($p = 0.043$). However, there was no difference in QoL by mode of transmission. Treatment with cART was associated with better QoL than pre-treatment status ($p = 0.049$), without differences in health ratings. QoL, but not health status, was significantly worse for patients with CD4 count of <200 than those with CD4 count of 200 to 499 ($p = 0.035$) or CD4 count ≥500 ($p = 0.037$). Correlational analyses for cART-treated patients showed age was negatively related to both QoL (−0.312, $p = 0.001$) and health (−0.357, $p < 0.001$).

Conclusion: Although both generic QoL and health status were worse in older (vs. younger) PLWHIV, the two outcomes showed different patterns according to clinical variables, with cART-treated patients reporting better QoL but no difference in perceived health compared with pre-treatment 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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Syphilis on the rise in HIV-positive MSM in Germany

J Wesselmann; C Boesecke; J Wasmuth; J Rockstroh and C Schwarze-Zander

Department of Internal Medicine I, University Hospital Bonn, Bonn, Germany

Background: STDs, such as syphilis, have been increasing in recent years among MSM, often HIV+ patients, due to more frequent condomless sex. Aim of our study was to evaluate incidence of syphilis infection, impact on immunological and laboratory markers and treatment response of serological markers in a German cohort.
Methods: This retrospective study included 859 HIV+ patients screened for syphilis infection (TPPA, VDRL) November 2015 to May 2017 in the HIV outpatient clinic at Bonn University Hospital. The impact of syphilis and its treatment on renal function markers (serum creatinine, GFR), liver enzymes (gamma-GT, ALT, AST), inflammatory parameters and blood count (CRP, Hb, LDH) and immune response (leucocytes, CD4 count, CD8 count, CD4/CD8 ratio) was investigated three to six months before, at time of syphilis diagnosis, and three to six months after treatment. Serological response to syphilis treatment (VDRL, TPPA) was investigated every three months after treatment.
Results: In the study period 43/859 (5%) patients were newly diagnosed with syphilis. Of these 3/43 (7%) were re-infected within the observation period. Compared to incidence of syphilis infection between 2000 and 2010 there was a 2.4-fold increase in 2016. Past syphilis infection was detected in 28% (244/859). All patients with syphilis were male and 97% MSM, compared to the whole study population patients were younger (mean age 44 years vs. 49 years) and fewer had symptomatic HIV disease (77% CDC stage A vs. 57%). Only 37% developed symptoms of syphilis (47% exanthema, 20% chancres, 20% uveitis, 13% urethritis). At the three observed timepoints mean gamma-GT increased from 49 U/L to 70 U/L ($p = 0.001$) and decreased to 53 U/L, respectively, CRP increased from 2.1 to 7.4 mg/dL and decreased after treatment to 1.6 mg/dL ($p = 0.002$) and the mean CD4 count dropped from 670/μL to 646/μL at time of syphilis diagnosis and increased significantly after treatment to 715/μL (mean, $p = 0.022$). The relative CD4 cell count did not change during the observation period. Following syphilis treatment VDRL titer showed a slow decrease. After three to six months only 50% showed a ≥ 4-fold decrease, which increased after nine to twelve months to 86%.
Conclusion: Syphilis co-infection has dramatically increased in our HIV+ population, especially in younger, healthier MSM. Regular screening is extremely important in this group of HIV+ patients as more than half of syphilis cases miss symptoms of infection. Elevation of gamma-GT and CRP and decrease of absolute CD4 cell count may be an indicator of syphilis infection. VDRL can show a slow decrease after treatment and requires monitoring.

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An assessment of how effectively health systems monitor HIV-associated comorbidities, using current global and European frameworks

K Safreed-Harmon[1]; J Pericàs[2]; M Kall[3]; U Davidovich[4]; J del Amo[5]; J Lazarus[1] and J Anderson[6]

[1]Barcelona Institute of Global Health (ISGlobal), University of Barcelona, Barcelona, Spain. [2]Infectious Disease Service, Hospital Clínic, University of Barcelona, Barcelona, Spain. [3]National Infection Service, Public Health England, London, UK. [4]Public Health Service of Amsterdam, Amsterdam, Netherlands. [5]National Center for Epidemiology, Institute of Health Carlos III, Madrid, Spain. [6]Jonathan Mann Clinic, Homerton University Hospital NHS Foundation Trust, London, UK

Background: Today we have the tools to deliver effective long-term viral suppression of HIV. Data from continua of care show increasing proportions of PLWHIV progressing to viral suppression in countries at all income levels. Yet alongside this progress, there is a growing burden of non-AIDS-defining comorbidities and related health concerns for PLWHIV. Decisions about which elements of service coverage and which health outcomes countries monitor have important implications for how health systems focus their HIV responses. This study examines whether existing monitoring frameworks sufficiently enable European countries to observe and understand the comorbidities that impact on the health and well-being of PLWHIV.
Materials and methods: Drawing on recent literature, we identified 15 non-AIDS-defining comorbidity areas that contribute to poor health in PLWHIV globally: bacterial and viral infections (excluding bacterial STIs), bacterial STIs (chlamydia, gonorrhoea and syphilis), cardiovascular, digestive, drug toxicities, endocrine/metabolic, haematological, liver (including HBV and HCV), malignancies, malnutrition/wasting, neurological, parasitic infections (including malaria), renal, respiratory and psychiatric conditions. Three researchers independently assessed the extent to which each comorbidity area was monitored with regard to: (1) service access; and (2) disease burden in four monitoring frameworks: Global AIDS monitoring 2018 (UNAIDS); Modular framework handbook (The Global Fund); MER 2.0 indicator reference guide (PEPFAR); and the 2018 Dublin Declaration questionnaire (European Centre for Disease Prevention and Control). Researchers assigned grades of A when comorbidities were addressed comprehensively, B when comorbidities were addressed but not comprehensively and C when comorbidities were not addressed. Discrepancies were resolved through consultation.
Results: Over half (8/15) of the comorbidities were not mentioned in any of the four monitoring frameworks (malignancies, parasitic infections, and digestive, endocrine/metabolic, haematological, neurological, renal and respiratory diseases/disorders). Across the four frameworks, there were more grades of A or B for access to services (11) than for comorbidity burden (four), and neither MER 2.0 nor the Dublin questionnaire included any indicators monitoring the comorbidity burden. The only item addressed comprehensively in Global AIDS Monitoring was comorbidity burden for drug toxicities. The only items addressed comprehensively in the Dublin questionnaire were access to services for bacterial STIs, liver diseases and psychiatric disorders.
Conclusions: We found major HIV monitoring frameworks fail to comprehensively address most non-AIDS-defining comorbidities, particularly chronic conditions associated with ageing. As the continuum of HIV care is reconceptualised to reflect long-term health and well-being, monitoring frameworks must be revised to include non-AIDS-defining comorbidities. This will encourage prevention, diagnosis and treatment of comorbidities consequently improving long-term health outcomes and quality of life.

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Delayed but adequate serologic response to syphilis treatment in HIV-positive adults

M Ren[1]; L Szadkowski[2]; D Tan[3] and S Walmsley[4]

[1]Medicine, University of Toronto, Toronto, Canada. [2]Biostatistics Research Unit, University Health Network, Toronto, Canada. [3]Infectious Diseases, St. Michael's Hospital, Toronto, Canada. [4]Infectious Diseases, University Health Network, Toronto, Canada

Background: Adequate response to syphilis treatment is a four-fold decrease in serum RPR at 6 (early syphilis) and 12 months (latent syphilis). We characterized the timeline of serologic response to syphilis treatment in HIV-positive adults.
Methods: We conducted a chart review of 532 HIV-positive adults with positive syphilis serology between 2000 and 2017. Inclusion criteria were: reactive pre-treatment RPR titer; documentation of date