

# Health-related quality of life of HIV-infected patients in care in the Netherlands: A cross-sectional assessment of patient related factors, and comparison with other chronic diseases.

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## Background

- HIV-infection is increasingly considered to be a chronic disease.
- The question arises how the health-related quality of life (HRQL) of persons with HIV-infection compares to that of persons with other chronic medical conditions.

## Objectives:

- To compare HRQL in HIV-infection with HRQL in three other chronic medical conditions: diabetes mellitus type 1 and type 2 and rheumatoid arthritis
- To investigate which demographic and clinical factors are associated with HRQOL in HIV positive persons.

## Methods

- Cross sectional study in 26 health care facilities in the Netherlands.
- HRQOL: Medical Outcomes Study Short Form 36-item health survey (SF-36).
- HIV patients who had received cART for at least 6 months.
- Other chronic diseases: patients with Diabetes mellitus (DM) type 1, DM type 2 and rheumatic disease.
- Logistic regression analysis: to examine the association between chronic disease group and poor physical or mental HRQOL, adjusted for age and gender.
- Dependent variables: the SF36 physical and mental health summary scores dichotomized at the lowest quartile. Subsequently, we identified patient factors related to poor mental and physical HRQOL in the HIV positive study population.

## Results

- A total of 331 HIV-infected patients participated. Physical HRQOL in the HIV-infected population was comparable to that of the patients with Diabetes mellitus types 1 (n=119) and 2 (n=2114), and significantly higher than in the rheumatoid arthritis group (n=250). The mental HRQOL in HIV-infected patients was significantly lower than in the other three groups.

**Table 1: Multivariate<sup>1</sup> model of poor HRQL in HIV relative to three other chronic medical conditions.**

Chronic condition	Physical health summary score OR (95% CI)	Mental health summary score OR (95% CI)
HIV	ref	ref
DM type 1	0.75 (0.44 to 1.26)	0.35 (0.18 to 0.70)*
DM type 2	0.94 (0.70 to 1.27)	0.32 (0.23 to 0.47)*
Rheumatoid arthritis	3.12 (2.16 to 4.51)*	0.28 (0.17 to 0.47)*

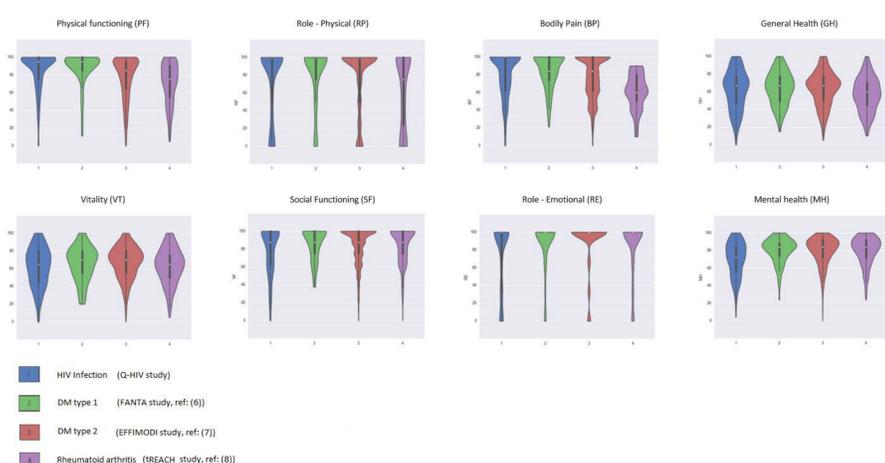
<sup>1</sup> Analysis adjusted for age, gender, region of origin (Netherlands versus other).  
\* statistically significant association.

**Table 2: Multivariate<sup>1</sup> model of poor HRQL in HIV.**

Characteristic	Physical health summary score OR (95% CI)	Mental health summary score OR (95% CI)
Region of origin		
• Netherlands	-	ref
• SS Africa		4.35 (1.58 to 12.0)*
• Other		0.84 (0.33 to 1.92)
Sex and/or route of transmission		
• MSM	ref	-
• hetero, male	0.84 (0.32 to 2.25)	
• hetero, female	2.12 (0.94 to 4.81)	
• other/unknown	3.82 (1.22 to 11.8)*	
CD4 count at participation		
• <350 cells/mm <sup>3</sup>	ref	ref
• ≥350 cells/mm <sup>3</sup>	0.62 (0.29 to 1.34)	0.45 (0.22 to 0.92)*
History of AIDS		
• no	ref	ref
• yes	1.84 (1.01 to 3.35)*	1.43 (0.79 to 2.58)
Time since cART initiation, per 10 yrs	1.90 (1.06 to 3.40)*	-
Comorbidity		
• none	ref	-
• severe	2.39 (1.15 to 4.97)*	
• secondary prevention	1.36 (0.65 to 2.81)	

<sup>1</sup> Analysis adjusted for age, gender, socio economic status, time since HIV diagnosis, current cART combination, history of HCV treatment.  
\* statistically significant association.

**Figure 1: HRQL in HIV and three other chronic conditions.**



## Conclusions

- Our study findings confirm that mental HRQOL deserves particular attention in HIV positive persons and suggest that it may be more impaired than in patients with other long-term illnesses.
- Within this group, patients with severe comorbidity and patients from sub-Saharan Africa are the most disadvantaged in terms of physical and mental HRQOL, respectively.

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