Late Presentation to HIV Diagnosis and Treatment in Germany

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Introduction:
Antiretroviral therapy reduces morbidity and mortality most markedly when initiated early before advanced immunodeficiency has developed. Despite the wide accessibility of HIV testing in western Europe, a significant number of cases reaching up to 30% potentially remain undiagnosed. Late diagnosis of HIV infection and late initiation of ART are associated with poorer outcomes and remain significant challenges even in industrialized countries where ART is widely available. To guide public health interventions effectively it is mandatory to define risk groups for late presentation. We aimed to analyze the situation of late presentation to HIV diagnosis and therapy in Germany.

Methods:
National surveillance data from mandatory reporting of all new HIV infections diagnosed in Germany in the years 2001-2008 were analyzed. Data included demographics, CD4 count and VL, as well as clinical stage at HIV diagnosis. Late presentation was defined as CD4 count < 200 cells/μl and/or CDC C status at diagnosis. Risk factors for late diagnosis of HIV were analyzed using logistic regression methods. In addition, data from the ClinSurv cohort, a large multicenter observational cohort HIV cohort in Germany, were analyzed. Data on demographics, CDC status, CD4 count, viral load, and treatment were compared between late and early presenters to therapy. Late presentation to HIV therapy was defined as initiation of firstline ART at <200 CD4 cells and/or CDC C status. Patients without data on CD4 count or CDC status were excluded.

Late presentation to HIV diagnosis in the national surveillance registry

Late presentation to HIV therapy in the ClinSurv Cohort

Results:
Among 12,248 eligible patients in the national surveillance database newly diagnosed between 2001 and 2008 18,5% had advanced immunodeficiency and/or clinical AIDS at the time of their first positive HIV test. Late presenters to HIV diagnosis were older and had higher viral load. Late presenters to HIV diagnosis were less likely to be MSM or IDU and to come from big cities. Viral load was higher. (all p<0,01) In the multivariable analysis older age was a risk factor for late presentation throughout all risk groups. Risk for late presentation decreased over the years for MSM (OR 0,93).

Limitations:
For late presenters to HIV diagnosis: Only patients with a documented CD4 count and/or CDC status were analyzed. (67,5% of entire registry data).

Discussion/Conclusions:
- Significant number (18.5%) of late presenters to HIV diagnosis
- High number (43.6%) of late presenters to firstline ART
- Risk factors for late presentation to HIV diagnosis include older age, living in rural areas, and year of diagnosis but their influence varies in different risk groups.
- Decreasing risk of late presentation to HIV diagnosis for MSM (~4% per year) may reflect effective and early testing in this risk group
- Increasing risk of late presentation to HIV diagnosis for migrants (+13% per year) shows a need to specifically target this risk group.
- Our results support a targeted testing rather than opt-out strategy on a national level in a low-prevalence country like Germany.