Multimorbidity patterns in HIV-infected patients: the role of obesity in chronic disease clustering.

Submitted by echamot on Mon, 08/19/2013 - 12:55pm

**Title**
Multimorbidity patterns in HIV-infected patients: the role of obesity in chronic disease clustering.

**Publication Type**
Journal Article

**Year of Publication**
2012

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**Journal**
J Acquir Immune Defic Syndr

**Volume**
61

**Issue**
5

**Pagination**
600-5

**Date Published**
2012 Dec 15

**ISSN**
1944-7884

**Keywords**
Adult, Alabama, Body Mass Index, Chronic Disease, Cluster Analysis, Comorbidity, Female, HIV Infections, Humans, Logistic Models, Male, Middle Aged, Obesity, Prevalence

**Abstract**

**BACKGROUND:** Increases in multimorbidity and obesity have been noted in HIV-infected populations in the current treatment era. Patterns of multimorbid disease clustering and the impact of obesity on multimorbidity are understudied in this population.

**METHODS:** We examined obesity and multimorbidity patterns among 1844 HIV-infected patients in the UAB 1917 Clinic. Exploratory factor analysis was used to identify the underlying factor structure responsible for clustering. Patterns among the resulting morbidity factors by body mass index (BMI) category were explored. Multivariable logistic regression models were fit to identify predictors of multimorbidity cluster patterns.

**RESULTS:** The prevalence of multimorbidity was 65% (1205/1844). Prevalence increased with progressive BMI categories from underweight (64%) to obese (79%). Three multimorbidity clusters were identified: "metabolic," including hypertension, gout, diabetes mellitus, and chronic kidney disease (range, 0.41-0.84; P < 0.001); "Behavioral," including mood disorders, dyslipidemia, chronic obstructive pulmonary disease, chronic ulcer disease, osteoarthritis, obstructive sleep apnea, and cardiac disorders (range, 0.32-0.57; P < 0.001); "Substance Use," including alcohol abuse, substance abuse, tobacco abuse, and hepatitis C (range, 0.53-0.89; P < 0.001). Obesity was associated with increased odds of multimorbidity (obese vs. normal BMI category: OR = 1.52, 95% CI: 1.15 to
CONCLUSIONS: Three patterns of disease clustering were identified. Obesity was associated with a higher likelihood of multimorbidity. The management of multimorbidity and obesity will need to be addressed in future clinical practice guidelines to enhance long-term outcomes of HIV-infected patients in the current treatment era.

DOI: 10.1097/QAI.0b013e31827303d5
PubMed ID: 23023101
PubMed Central ID: PMC3508375
Grant List:
1K07AG31779 / AG / NIA NIH HHS / United States
1R21HS019516-01 / HS / AHRQ HHS / United States
1R24 AI067039-1 / AI / NIAID NIH HHS / United States
5 T32 HS013852 / HS / AHRQ HHS / United States
P30 AI27767 / AI / NIAID NIH HHS / United States
R01 AG015062 / AG / NIA NIH HHS / United States
R18-HS017786-02 / HS / AHRQ HHS / United States
R21 CA124336 / CA / NCI NIH HHS / United States
U2R TW006246 / TW / FIC NIH HHS / United States
UB4HP19045 / / PHS HHS / United States