UGANDA RUSSIA BOSTON ALCOHOL NETWORK FOR ALCOHOL RESEARCH COLLABORATION ON HIV/AIDS

Presented by Jeffrey H. Samet, MD, MA, MPH
Consortium Principal Investigator
Boston Medical Center
Boston University Schools of Medicine and Public Health
Consortium Theme

To examine the consequences of alcohol on HIV disease and to mitigate its harmful effects

Consortium Research Questions

- Heavy alcohol use on HIV disease pre-ART
- Alcohol consequences on inflammatory markers
- Alcohol use on bone health
- Buprenorphine to address heavy alcohol use
Consortium Investigators

• Administrative Core (U24)
  – Jeffrey Samet (BUMC)
  – Carly Bridden
  – Allen Gifford

• Biostatistics and Data Management Core (U24)
  – Debbie Cheng (BUMC)
  – Christine Chaisson
  – Timothy Heeren
  – Michael Winter

• Boston Cohort (U01)
  – Richard Saitz (BUMC)
  – Alexander Walley
  – Jeffrey Samet

• Uganda Cohort (U01)
  – Judith Hahn (UCSF)
  – Winnie Muyindike
  – Peter Hunt
  – Jeffrey Samet

• Russia Cohort (U01)
  – Jeffrey Samet (BUMC)
  – Matthew Freiberg
  – Evgeny Krupitsky
Locations of Cohorts and Investigators

- Investigator
- Cohort
- NIH
Is heavy alcohol use associated with osteopenia in HIV-infected?

Does buprenorphine reduce heavy alcohol use?

- Prospective Cohort: Bone density (n=250)
- HIV-infected men and women
- Substance dependence or IDU
- RCT: High vs. standard dose buprenorphine (n=100)
Expansion of current SAMHSA-funded Boston cohort (FAST-PATH)

Current Cohort status:

• N=136 (36% women)
• Any alcohol use in past year = 83 (61%)
• Currently on buprenorphine = 82 (60%)
• Treated with buprenorphine & alcohol to intoxication (past 30 days) = 28 (21%)
Does heavy alcohol use worsen HIV disease progression pre-ART?

- Prospective Cohort: Alcohol’s impact on HIV disease progression (n=650)
- HIV-infected men and women not on ART
- Alcohol Biomarker PEth, sCD14, IL-6
- Recruited among 1200 persons entering care annually at an 8000 person HIV clinic
Expansion of NIAAA-funded Uganda cohort (BREATH)

Current Cohort Status (n=26):

• Women=11; 30% hazardous drinking past 3 months (AUDIT-C)

• Men=16; 64% hazardous drinking past 3 months (AUDIT-C)

• Mean age 30, range 18 – 69

• CD4 cell count: median 295 cells/mm³, range 42 – 674
Is heavy alcohol use associated with elevated inflammatory markers?

• Prospective Cohort: Inflammatory biomarkers and alcohol consumption (n=250)
• HIV-infected men and women not on ART
• Outcomes: sCD14, D-dimer
Current cohort status:

- N=304 participants who are alive, agreed to be contacted for future studies, and have never been on ART
- Women=116; 47% heavy drinking past 30 days
- Men=188; 40% heavy drinking past 30 days
- Mean age 30, range 19-49
Admin & BDM Cores

• PIs: Jeffrey Samet & Debbie Cheng
• 10+ yrs collaborating with most investigators
• Create and manage a centralized data and sample repository
• Support linkages between project investigators
• Facilitate implementation research opportunities
• Coordinate External Monitoring Board
Integration and Synergy of the URBAN ARCH Consortium

Distinct cohorts allow examination of a range of critical HIV/alcohol issues difficult to study in the US.
Integration and Synergy of the URBAN ARCH Consortium

• Cohort Characteristics
  • ART status at enrollment, both genders, affected by multiple substances

• Sample Collection
  • Alcohol biomarker phosphatidylethanol (PEth), soluble CD14, Fib-4, sample repository

• Common Measures
  • HIV diagnosis, CD4 count, TLFB, AUDIT-C, CIDI-SF, BDI-2
Cross-Cohort Studies

- Determine the association between heavy alcohol use and inflammatory markers (i.e., IL-6 and sCD14)
- Determine the association between heavy alcohol use and markers of bone turnover
- Potential future areas of research:
  - Association of alcohol use and HIV on hepatic and non-hepatic manifestations of hepatitis B and C
  - Effects of alcohol use and HIV on neuropsychiatric conditions
Thank You