

Funding: The COHERE study group has received unrestricted funding from: Agence Nationale de Recherches sur le SIDA et les Hépatites Virales (ANRS), France; HIV Monitoring Foundation, the Netherlands; and the Augustinus Foundation, Denmark. The research leading to these results has received funding from the European Union Seventh Framework Programme (FP7/2007-2013) under EuroCoord grant agreement n° 260694. A list of the funders of the participating cohorts can be found on the Regional Coordinating Centre websites at http://www.cphiv.dk/COHERE/tabid/295/Default.aspx and http://etudes.isped.u-bordeaux2.fr/cohere."







Trends in mortality among HIV-infected subjects; differences by HCV coinfection

Belen Alejos for the Trends in cause-specific mortality working group of COHERE in EuroCoord

Introduction

- Coinfection by hepatitis C virus (HCV) is one of the most common comorbidities in HIV-positive individuals
- There are currently limited data on trends in cause-specific mortality in subjects co-infected by HCV and HIV compared to subjects only infected by HIV.

Objetive

To study trends from 2000-14 in overall and cause-specific mortality, stratified by HCV status, among HIV-positive adults within the Collaboration of Observational HIV Epidemiological Research Europe (COHERE).

Methods

Study population

COHERE – Collaboration of Observational HIV Epidemiological Research in Europe in EuroCoord

Selection Criteria and Follow-up

- We included HIV-positive adults from Western European countries, >16 years and recruited after 2000, who were antiretroviral treatment naïve and had at least one HCV test result at baseline.
- Baseline was defined as the date of cohort recruitment for patients with known HCV status at recruitment, or if unknown the date of first HCV test after recruitment.
- We excluded cohorts with causes of deaths or HCV-status missing in >50% of patients.

Outcome

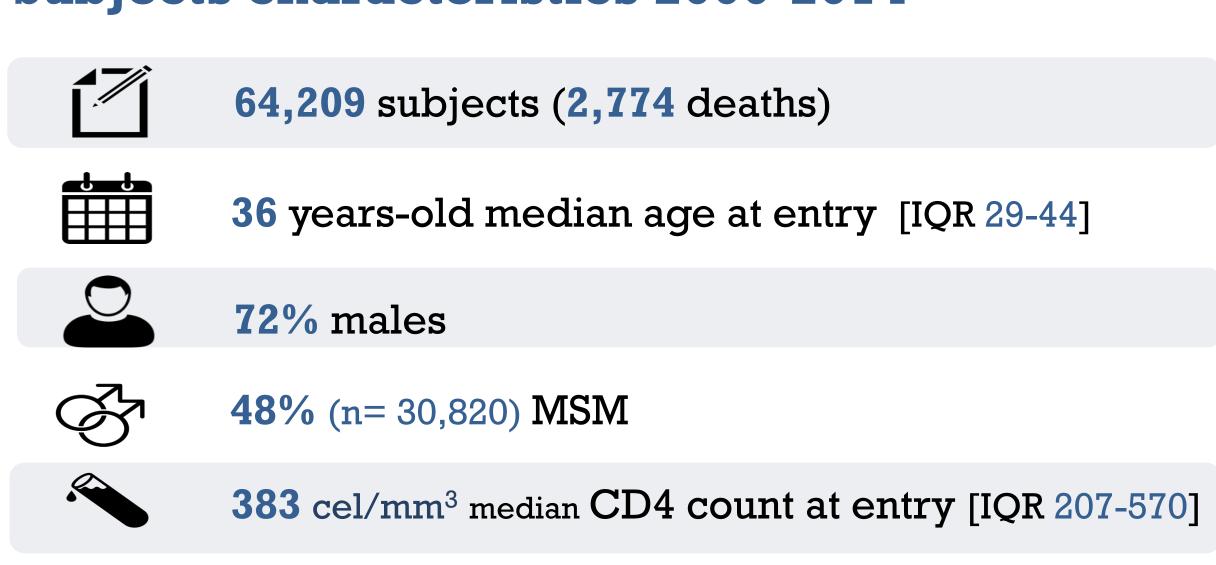
Cause-specific mortality groups were based on a simplified algorithm adapted from the CoDe coding system: AIDS-related (AR), Liver-related (LR), Non-AIDS malignancies (NADM), Non-AIDS infections (NADI), cardiovascular, and psychiatric).

Statistical Analyses

- To assess changes over time in overall and cause-specific mortality, follow-up was divided into two calendar periods (2000-2007 and 2008-2014).
- Adjusted Mortality Rate Ratios (aRR) with 2000-2007 as reference were stratified by HCV status using Poisson regression.
- We used chained equations multiple imputation of missing data including Cause of Death.

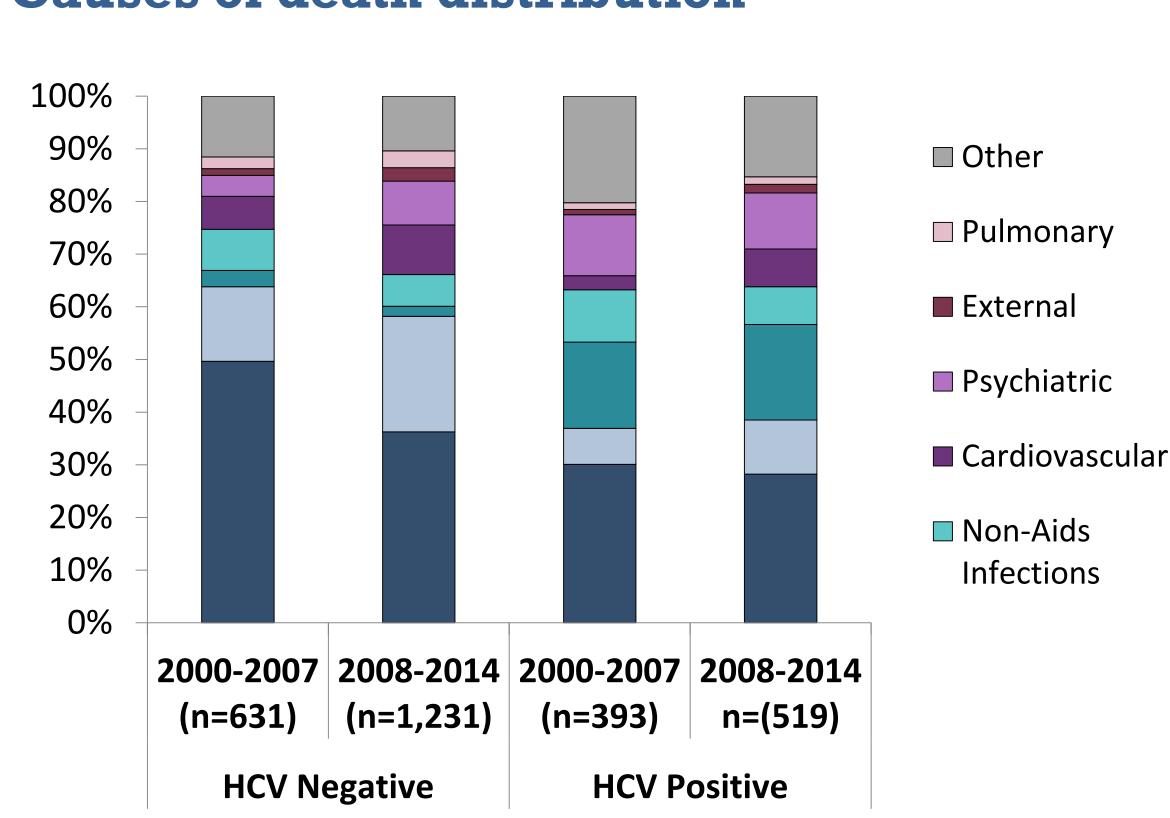
Results

Subjects characteristics 2000-2014



13% (n=8,174) HCV-positive at baseline

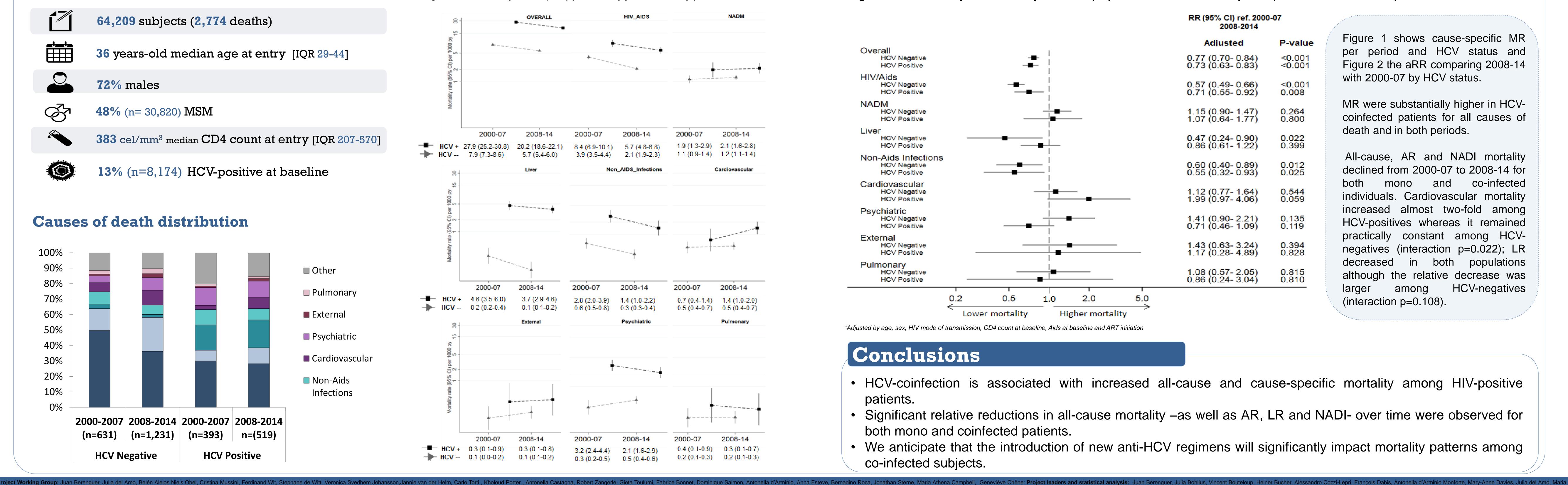
Causes of death distribution



Judd, Pablo Rojo Conejo. European AIDS Treatment Group: David Haerry. Regional Coordinating Centres: Bordeaux RCC: Diana Barger, Christine Schwimmer, Monique Termote, Linda Wittkop; Copenhagen RCC: Maria Campbell, Casper M. Frederiksen, Nina Friis-Møller, Jesper Kjaer, Dorthe Raben, Rikke Salbøl Brandt

Overall and cause-specific mortality rates

Figure 1: Mortality Rates (MR) per 1000 py stratified by period and HCV coinfection



Effect of calendar period on overall and cause-specific mortality

Figure 2: Crude and adjusted mortality Rate ratio (RR) for the effect of calendar period (2008-2014 vs 2000-2007)

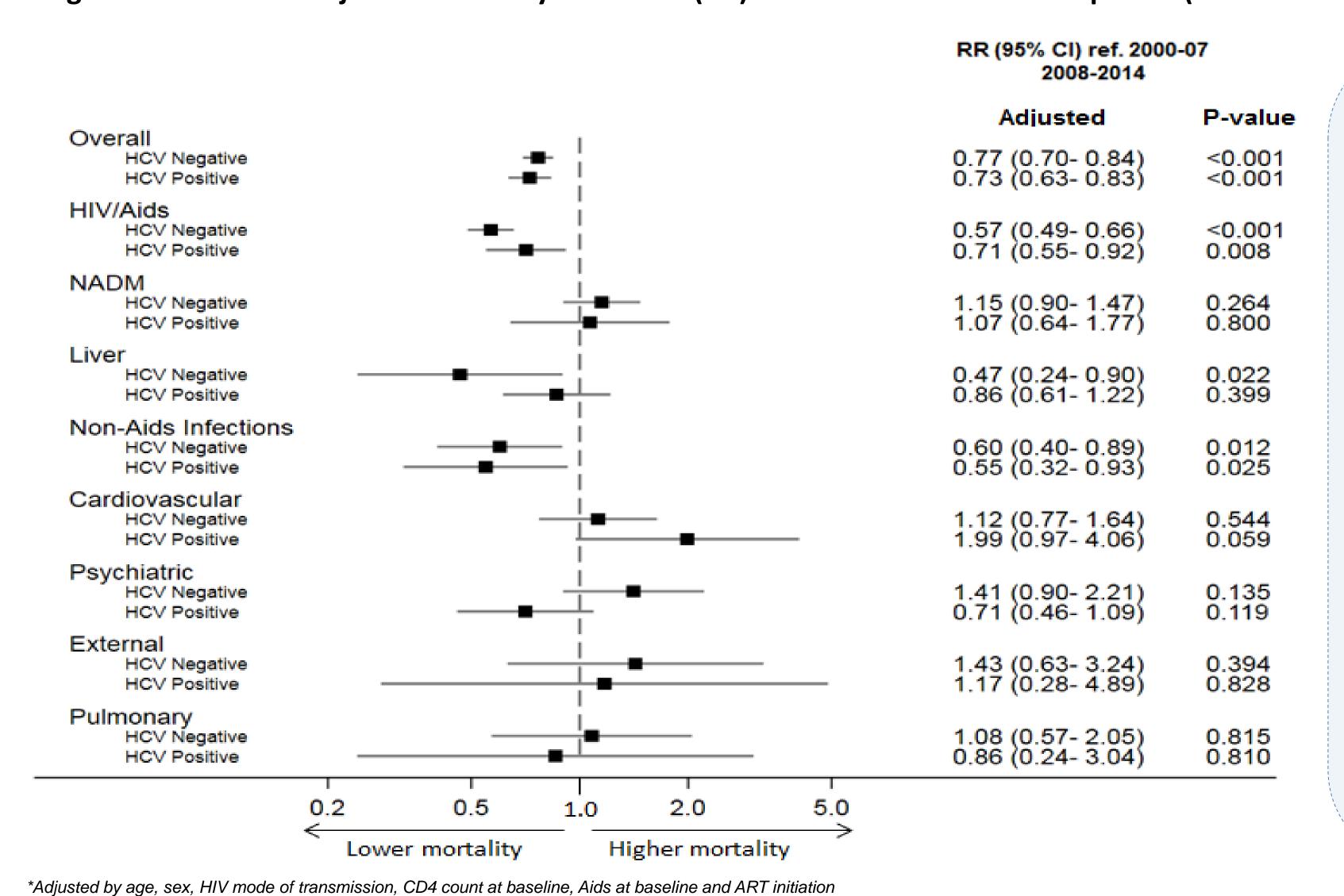


Figure 1 shows cause-specific MR per period and HCV status and Figure 2 the aRR comparing 2008-14 with 2000-07 by HCV status.

MR were substantially higher in HCVcoinfected patients for all causes of death and in both periods.

All-cause, AR and NADI mortality declined from 2000-07 to 2008-14 for co-infected and individuals. Cardiovascular mortality increased almost two-fold among HCV-positives whereas it remained practically constant among HCVnegatives (interaction p=0.022); LR populations although the relative decrease was **HCV-negatives** (interaction p=0.108).

Conclusions

Steering committee: Executive Contributing Contr (Cologne-Bonn), Vikoloz Chkhartishvili (Georgian National HIV/AIDS), Antoni Noguera-Julian (CORIS), Niels Obel (Danish HIV Cohort), Vikoloz Chkhartishvili (Georgian National HIV/AIDS), Antoni Noguera-Julian (CORIS), A Ration (St. Pierre Cohort), Anders Sönnerborg (Swedish InfCare), Carlo Torti (The Italian Master Cohort), Paediatric Cohort), Antonella Castagna (SHCS), Antonella Castagna (San Raffaele), Deborah (St. Pierre Cohort), Paediatric Cohort), Paediatri

- HCV-coinfection is associated with increased all-cause and cause-specific mortality among HIV-positive patients.
- Significant relative reductions in all-cause mortality —as well as AR, LR and NADI- over time were observed for both mono and coinfected patients.
- We anticipate that the introduction of new anti-HCV regimens will significantly impact mortality patterns among co-infected subjects.