

HCV REINFECTION IS COMMON IN PEOPLE ENTERING PRISONS IN CATALONIA, SPAIN (RE-HCV STUDY)

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Background:

Since 2015, >1,000 people with hepatitis C have been treated with direct-acting antivirals (DAAs) in Catalan prisons and >95% obtained a sustained virological response (SVR). However, reinfection is an obstacle to successful HCV elimination. We aimed i) to determine the reinfection rate post-RVS in people treated in Catalan prisons, and ii) to assess how many cases of viremic HCV infection detected at incarceration were due to reinfection and to identify reinfection determinants.

Methods:

Re-HCV was a prospective study of HCV reinfection in the eight Catalan prisons (2019-2020). Two cohorts were analysed: 1) People successfully treated with DAAs while in prison and followed-up for reinfection at 6 months intervals, and 2) People with detectable HCV-RNA at incarceration. Socio-demographic and clinical-therapeutic data, and drug consumption and sexual practices inside and outside the prison were recorded. HCV reinfection determinants were identified by multivariate logistic regression analysis.

Results:

Reinfection follow-up was accomplished in 97 individuals treated with DAAs in the Catalan prisons (103.05 PY follow-up), and two cases (2.1%) of reinfection were detected at 12 months post-SVR for an incidence of 1.94/100 PY (95%CI: 0.24-7.01). 17,732 people entered prisons and were tested for HCV-RNA during the study period; 359 (2.0%) were viremic, 327 (91.1%) accepted to participate, and 44 (13.5%) were reinfections. Reinfection determinants were HCV genotype 3 infection (OR=3.4, 95%CI: 1.08-13.38), unprotected sex in prison (OR=5.1, 95%CI: 1.64-15.81), and sharing of needles in prison (OR=5.9, 95%CI: 2.39-14.5).

Conclusion: Despite HCV reinfection rate is low in individuals treated with DAAs, it is common in people entering Catalan prisons and is mostly associated with sharing needles and unprotected sex during previous imprisonments. To maintain a low prevalence of HCV infection in prisons it is necessary to strengthen harm reduction and test and treat programs among people who inject drugs inside and outside prisons.

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