**GLOBAL GENOTYPE DISTRIBUTION OF HEPATITIS C VIRAL INFECTION AMONG PEOPLE WHO INJECT DRUGS**

Bielen R1,2, Robaeys G1,2,3, Azar DA2,3, Razavi H4, Nevens F3

1Faculty of Medicine and Life Sciences, Hasselt University, Hasselt, Belgium

2Department of Gastro-Enterology and Hepatology, ZOL Genk, Belgium

3Department of Gastro-Enterology and Hepatology, KULeuven, Belgium

4Center for disease analysis, Louisville, USA

**Background:** Hepatitis C viral infection (HCV) after injection drug use is very prevalent. HCV genotypes are clinically significant as they are relevant to vaccine development, the evolution to fibrosis and cirrhosis and the response to antiviral treatment. Thus, the HCV genotype, including genotype 1 subtype, should be assessed prior to treatment initiation. However, no systematic review update on the global genotype distribution of HCV in people who inject drugs (PWID) is available at this moment.

**Method:** A systematic review was performed by using the keywords: Genotype, Hepatitis C, Injection drug user / Intravenous drug user / Substance user/ PWID, Name of countries in Pubmed, Embase and PsychInfo. The results were compared with the review of Gower et al. in 2014, concerning the distribution of HCV genotypes in the general HCV population.

**Findings:** Using these keywords, 132 studies in 48 countries (from 1995 to 2015) were collected. After grading these results, the data of 48 studies were used to determine the distribution of genotypes in PWID. Genotype 1 is the most prevalent genotype all over the world in PWID. In Europe, genotypes 1, 3 and 4 are highly prevalent. In North and South America and in Australia genotype 1 and 3 are most prevalent. In Asia genotype 2 and 6, and Africa genotype 1a and 4 are mostly observed. Overall, the most important differences comparing with the general population are a lower prevalence of genotype 1b in the PWID population and higher prevalence of genotype 3.

**Interpretation:** This review shows differences in HCV genotypes in PWID and the general population. Since the genotype still determines the choice of therapy, it remains important to genotype all patients. As genotype 1 is the most prevalent in PWID and subtypes affect the choice of treatment, subtyping of genotype 1 should always be performed.

**Disclosure of interest statement:** “The authors state that there are no conflicts of interest, this review was conducted without funding”