**BACKGROUND**

- High incidence of HCV infection has been reported among high risk MSM [1, 2].
- Current guidelines recommend that these individuals should be screened at least once a year with ALT and anti-HCV antibody [3].
- Our aim was to assess the sensitivity of different tests for early diagnosis of acute hepatitis C in high risk MSM.

**METHODS**

### Population and samples
- High risk MSM enrolled in the ANRS IPERGAY PreP trial screened and blinded phases.
- Follow-up visits: screening, M1, M2 and every 2 months.
- Stored sera at each visit.
- **Screening for Hepatitis C**
  - ALT at each visit.
  - 3rd Generation (3thG) HCV antibody immunoassay (EIA 3thG).
  - At the screening visit and every 6 months.
  - If ALT > 2.5 times the upper limit of normal (ULN).

**Evaluation of the sensitivity of HCV diagnostic tests**
- At the visit of diagnosis.
- At the previous visit (using stored sera).

**RESULTS**

**High risk MSM (N=428)**

**Acute HCV-infected patients (N=14)**

**CONCLUSION**

- The HCV antigen immunoassay and plasma HCV RNA test were positive within a median of 2 weeks between the detection of antibodies and ALT elevation, when patients were symptomatic and had not been diagnosed as ALT in the majority of cases.
- These tests should be used in high risk MSM for early diagnosis of acute HCV infection and prevention of transmission.

**TABLE 1. Characteristics of patients with hepatitis C (N=13).**

Risk factors for hepatitis C were collected during the last two months or the last four weeks before hepatitis C diagnosis visit (data are presented as median or n/N evaluated).

† 1 participant with no data at HCV diagnosis.

* CHEMSEX: use of ecstasy / cocaine / GHB/GBL / ketamine / crack / heroin / speed / LSD / mephedrone or slam.

**TABLE 2. Sensitivity of the different tests available for acute HCV infection diagnosis at the visit of diagnosis and during the prior visit.**

Prior visit occurred within a median delay of 2 months earlier (IDR: 1.5-2). Among 12 patients who were tested during prior visit with both HCV RNA (Roche) and ALT, 7 had an HCV RNA detectable and no increased ALT (p<0.008; McNemar’s test).

* 1 participant with no previous visit data.

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