# EFFICACY OF ALL-ORAL HCV THERAPY IN PEOPLE WHO INJECT DRUGS

Shahi R[1], Hakobyan S[1], Kiani G[1], Raycraft T[1,2], Alimohammadi A[1], Singh A[1], Conway B[1]

1. Vancouver Infectious Diseases Centre
2. Faculty of Medicine, University of British Columbia, Vancouver, BC

5th International Symposium on Hepatitis Care in Substance Users

**Vancouver ID Centre**
200-1200 Burrard Street
Vancouver, BC V6Z 2C7
Tel: (604) 642-6429
Fax: (604) 642-6419

## BACKGROUND

People who inject drugs (PWID) represent a disproportionate fraction of Hepatitis C (HCV) infected individuals in Canada (1). Sharing of injection equipment is a significant source of viral transmission. Recently, novel all-oral therapies have supplanted interferon-based regimens as the standard of care for the infection, consistently demonstrating higher rates of sustained virologic response (SVR) and comparatively favorable side effect profiles (2). This has initiated a new era with a possibility of cure for all patients. This study seeks to assess the efficacy of such all-oral therapies in PWID and, as such, provide further support for the treatment of this vulnerable population without a mandated abstinence period.

## METHODS

A retrospective cohort analysis was performed on all HCV-infected patients who were treated at a tertiary clinic in downtown Vancouver and had a history of injection drug use. Appropriate treatment regimens were chosen and follow-up visits (weeks 2, 4, 6, 8, 10, 12, and/or 24 weeks) were scheduled. The primary outcome of the analysis was achievement of SVR. Other gathered data included ongoing HCV-related risk factors and co-morbidities.

## RESULTS

Within our cohort, 50 patients received and completed all-oral HCV regiments. The mean age was 52.4 (range 34-75), 37 (74%) were male, 20 (40%) were on opiate substitution therapy, 33 (66%) were using cocaine, 31 (62%) were using opioids, and 23 (46%) were using other stimulants. Among the 50 patients who completed treatment, 44 (88%) achieved SVR. In addition, 4 (8%) exhibited HCV relapse and 0 (0%) were re-infected.

**TABLE 1: BASELINE PATIENT CHARACTERISTICS**

| | |
|---|---|
| **Mean Age** | 52.4 (Range 34-75) |
| **Male (%)** | 37 (74%) |
| **Opiate Substitution Therapy (%)** | 20 (40%) |
| **Cocaine Users (%)** | 33 (66%) |
| **Opioid Users (%)** | 31 (62%) |
| **Other Stimulant Use (%)** | 23 (46%) |

**FIGURE 1: HCV GENOTYPES OF PATIENTS (N=50)**

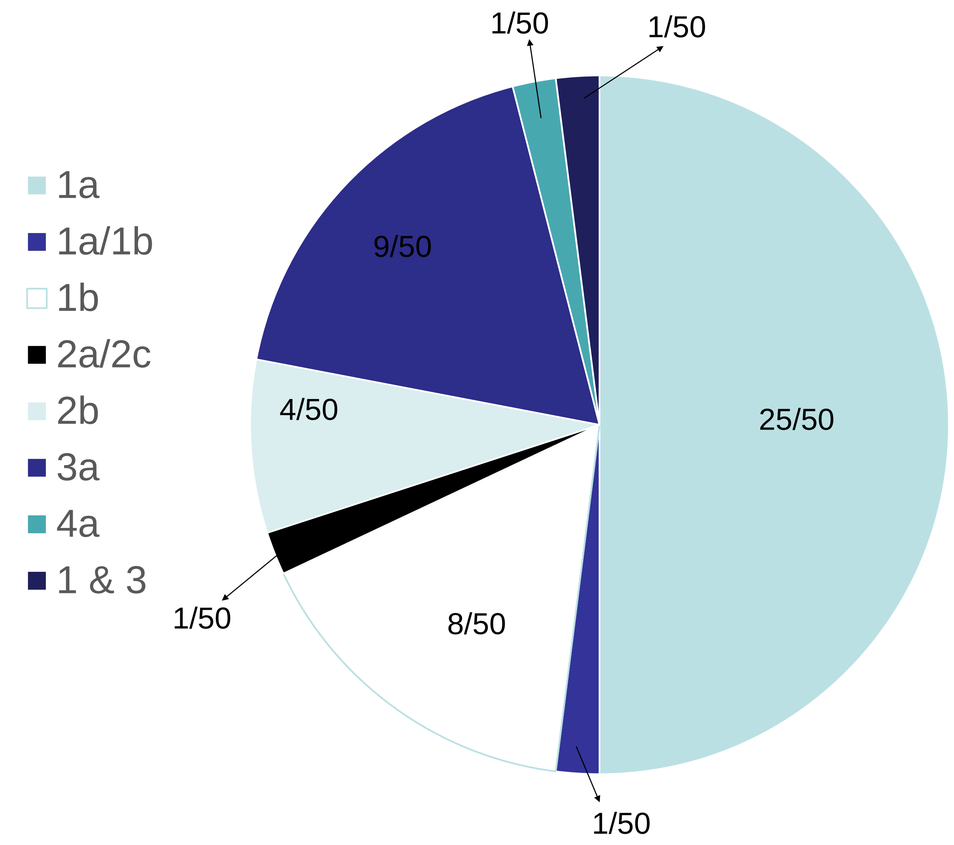
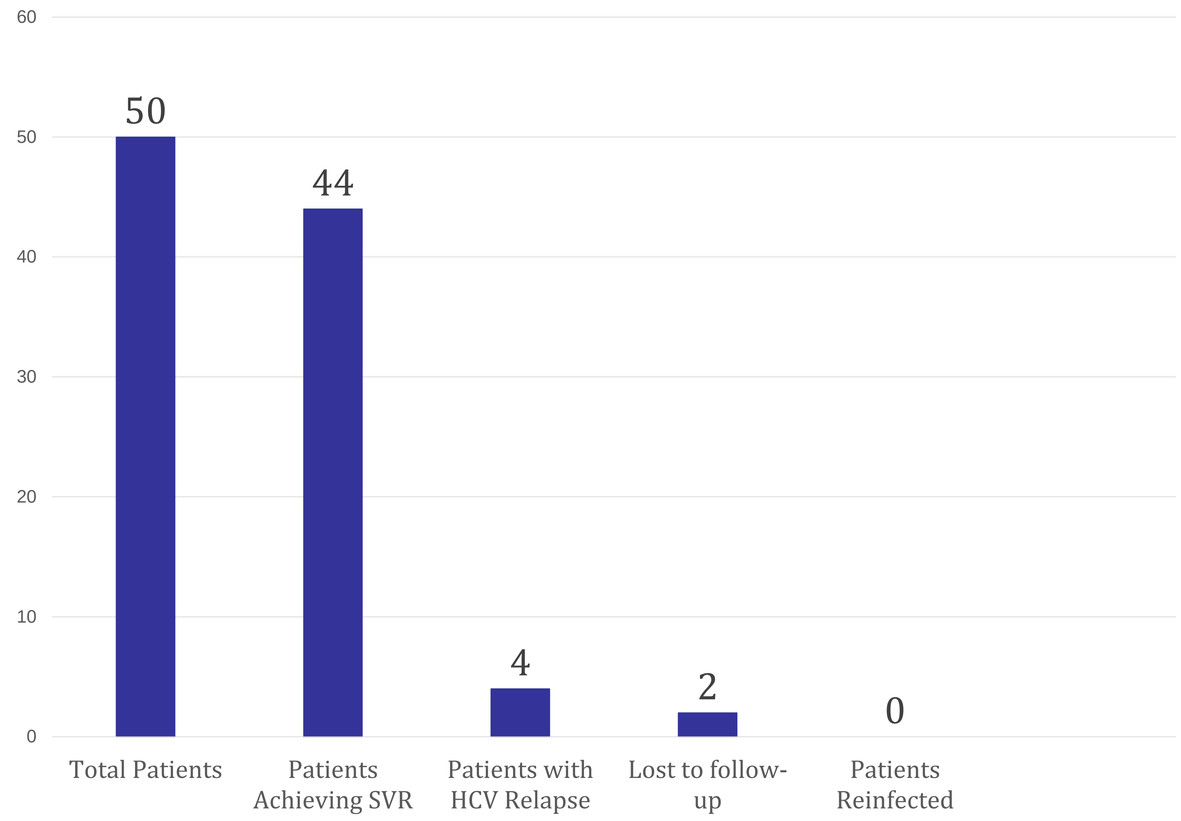



**FIGURE 2: TREATMENT OUTCOMES FOR PWID ON ALL-ORAL HCV THERAPY**




## CONCLUSIONS

High SVR rates expected with new all-oral HCV treatment regimens can be replicated in clinical practice, at least within a multidisciplinary care model. These data (along with the low re-infection rate we report) support current guidelines for the treatment of HCV-infected PWID who are not abstinent from recreational drug use.

**ACKNOWLEDGEMENTS**

Vancouver Infectious Diseases Centre patients, staff, and supporters, who are committed to the success of the program.

**CONFLICT OF INTEREST**

Brian Conway- Advisory Committees of Review Panel: Vertex Pharmaceuticals, Merck, Boehringer Ingelheim, Jannsen Pharmaceuticals; Grant/Research Support: Vertex Pharmaceuticals, AbbVie, Gilead Sciences, Gilead

**REFERENCES**

1. Grebely J, Tyndall MW. Management of HCV and HIV infections among people who inject drugs. Curr Opin HIV AIDS. 2011; 6:501–7.
2. Hagan LM, Yang Z, Ehteshami M, Schinazi RF. All-oral, interferon-free treatment for chronic hepatitis C: cost-effectiveness analyses. J Viral Hepat. 2013; 20:847–857.