

EFFICACY OF RESPONSE-GUIDED PEGYLATED INTERFERON AND RIBAVIRIN THERAPY FOR PEOPLE WHO INJECT DRUGS WITH HCV GENOTYPE 2/3 INFECTION: THE ACTIVATE STUDY

Grebely J¹, Dalgard O², Conway B³, Foster GR⁴, Bruggmann P⁵, Hajarizadeh B¹, Backmund M⁶, Robaey G^{7,8,9}, Swan T¹⁰, Amin J¹, Marks P¹, Quiene S¹, Weltman M¹¹, Shaw D¹², Dunlop A¹³, Hellard M¹⁴, Bruneau J¹⁵, Bourgeois S¹⁶, Staehelin C¹⁷, and Dore GJ¹ on behalf of the ACTIVATE Study Group

¹The Kirby Institute, UNSW Australia, Sydney, Australia, ²Akershus University Hospital, Oslo, Norway, ³Vancouver Infectious Diseases Center, Vancouver, Canada, ⁴The Liver Unit, Queen Marys University of London, London, United Kingdom, ⁵Arud Centres for Addiction Medicine, Zurich, Switzerland, ⁶Ludwig Maximilians-University Munich, Munich, Germany, ⁷Department of Gastroenterology and Hepatology, Ziekenhuis Oost Limburg, Genk, ⁸Department of Hepatology, UZ Leuven, Leuven, ⁹UHasselt, Hasselt, Belgium, ¹⁰Treatment Action Group, New York, United States, ¹¹Nepean Hospital, Sydney, ¹²Royal Adelaide Hospital, Adelaide, ¹³School of Medicine and Public Health, University of Newcastle, Newcastle, ¹⁴Burnet Institute, Melbourne, Australia, ¹⁵Universite de Montreal, Montreal, Canada, ¹⁶Stuivenberg ZNA, Antwerp, Belgium, ¹⁷Division of Infectious Diseases, University Hospital and University of Bern, Bern, Switzerland

Introduction: Despite guidelines advocating for HCV treatment among PWID, treatment uptake is low. The aim of this study was to evaluate response-guided pegylated interferon alfa-2b (PEG-IFN) and ribavirin (RBV) treatment for chronic HCV genotypes 2/3 (G2/3) among recent PWID.

Methods: Participants with chronic HCV G2/3 and recent injecting drug use (previous 12 weeks) or receiving opioid substitution treatment (OST) were recruited between 2012 and 2014. Participants received directly observed PEG-IFN (1.5 µg/kg/week) and self-administered RBV (800-1400 mg daily, weight-based). Participants with a rapid virological response (RVR) received 12 weeks (shortened duration) and those without RVR received 24 weeks (standard duration) therapy. The primary endpoint was sustained virological response at 12 weeks (SVR12) by intention to treat.

Results: 93 participants initiated treatment (mean age 42 years; 82% male; 87% HCV G3), with 25% (n=23) receiving OST with no recent injecting, 17% (n=16) receiving OST with recent injecting, and 58% (n=58%) not receiving OST with recent injecting. Sixty-six percent (n=61) achieved RVR and received shortened treatment, while 28% (n=26) did not achieve RVR and received standard treatment. SVR12 was 62% (58/93). Therapy was discontinued prior to week four in 6% (n=6). SVR12 was 79% (48/61) in those with RVR (shortened treatment) compared to 38% (10/26) in those without RVR (standard treatment). SVR was similar among OST non-injecting, OST injecting and non-OST injecting groups (68% vs. 63% vs. 86%, P=0.446). In multivariate analyses, RVR was the only factor associated with SVR (OR=7.51; 95% CI: 2.38, 23.73; P<0.001).

Conclusion: Among PWID with chronic HCV G2/3, on-treatment RVR allowed shortened treatment duration and remained a strong predictor of SVR. Injecting drug use at baseline was not associated with reduced response to therapy. These data suggest that among PWID with chronic HCV G2/3 and an RVR, shortened PEG-IFN/RBV treatment may be a feasible strategy.

Disclosure of Interest Statement: The Kirby Institute is funded by the Australian Government Department of Health and Ageing. This study was funded by Merck, Sharp & Dohme.