

C-EDGE CO-STAR: RISK OF REINFECTION FOLLOWING SUCCESSFUL THERAPY WITH ELBASVIR (EBR) AND GRAZOPREVRIL (GZR) IN PERSONS WHO INJECT DRUGS (PWID) RECEIVING OPIOID AGONIST THERAPY (OAT)

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Background: The fixed-dose combination of EBR 50 mg, an NS5A inhibitor, and GZR 100 mg, an NS3/4 protease inhibitor (EBR/GZR), is a highly effective and well-tolerated all-oral, once-daily regimen in diverse populations of hepatitis C virus (HCV) genotype (GT)1-, 4-, or 6-infected patients, including PWID on OAT. However, data on HCV reinfection rates after successful treatment are limited.

Methods: The double-blind, placebo-controlled CO-STAR study evaluated the efficacy of EBR/GZR for 12 weeks in treatment-naïve HCV GT1-/4-/6-infected patients receiving OAT. Patients were randomized 2:1 to an immediate treatment group (ITG) or a deferred treatment group. HCV reinfection was evaluated among ITG patients with undetectable HCV RNA at end of treatment (EOT). In patients with recurrent viremia following EOT, population sequencing and phylogenetic analysis were performed on baseline and post-treatment samples to distinguish relapse from reinfection.

Results: Three hundred one patients were randomized, with 201 in the ITG (76% GT1a; 20% cirrhotic; 8% HIV+). Baseline OAT included methadone (81%) and buprenorphine (19%), and 46% had detectable illicit drugs, excluding marijuana. Post-treatment viremia was detected in 18 patients, with 12 virologic failures and 6 probable reinfections (5 through follow-up week (FW)12 and 1 at FW24). Three patients identified as reinfections had subsequent clearance of HCV RNA. Estimated reinfection incidence per 100 person-years from EOT through FW12 is 10.6 (95% CI: 3.42, 24.6), and from EOT through FW24 is 3.4 (95% CI: 1.3, 7.5). Follow-up analysis to determine if any probable reinfections were due to relapse of nondominant baseline variants rather than reinfection will be presented

Conclusion: Several HCV reinfection cases were detected among PWID on OAT following successful EBR/GZR therapy. Further follow-up is required to determine the natural course of HCV reinfection in the setting of interferon-free HCV treatment and the impact of viral persistence following reinfection on long-term response rates in this population.