EFFICACY & SAFETY OF RAVIDASVIR + SOFOSBUVIR IN HEPATITIS C: STORM-C-1 FINAL RESULTS

528

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BACKGROUND

Affordable direct-acting antivirals are urgently needed to treat hepatitis C virus (HCV) infection in low and middle-income countries. STORM-C-1 study aimed to assess the efficacy and safety of ravidasvir plus sofosbuvir in adults chronically infected with HCV, with or without HIV coinfection.

METHODS

Trial design: Two-stage, open-label, phase 2/3 single-arm clinical trial conducted in 13 public hospitals in Malaysia and Thailand.

Participants: Chronic HCV infection, aged 18–69 years, without cirrhosis or with compensated cirrhosis (Child-Turcotte-Pugh class A), regardless of HCV genotype, HIV infection status or previous interferon-based HCV treatment.

Treatment: Once daily ravidasvir (200 mg) and sofosbuvir (400 mg) – 12 weeks for participants without cirrhosis or 24 weeks for those with cirrhosis.

Primary endpoint: Sustained virological response at 12 weeks after treatment (SVR12), defined as HCV RNA < LLOQ (<15 IU/mL in Malaysian and <12 IU/mL in Thai sites).

RESULTS

Baseline characteristics

Between September 2016 and September 2020, 603 participants were enrolled in STORM-C-1. Of these, 296 (49%) had genotype 3 infection, 162 (27%) had genotype 1a, 81 (13%) had genotype 1b, 61 (10%) had genotype 6 and 3 (<1%) had genotype 2. 238 (39%) had compensated cirrhosis, 192 (32%) had HIV co-infection, and 120 (20%) had received previous interferon-based treatment.

SVR by visit during post treatment period
Full analysis set (n=602)

Visit	SVR	95% CI of SVR
Follow-up Wk 4	586/602 (97.3%)	95.7% to 98.5%
Follow-up Wk 12	**583/602 (96.8%)**	**95.1% to 98.1%**
Follow-up Wk 24	580/602 (96.3%)	94.5% to 97.7%

Ravidasvir + sofosbuvir was well tolerated with excellent safety and efficacy in chronic HCV infection, including in difficult-to-treat populations (GT3, cirrhosis, prior HCV treatment, HIV co-infection).

Sustained virological response at 12 weeks post-treatment – Full analysis set (n=602)

Overall SVR12 rate in per protocol set (n=580): 98.1% (95% CI: 96.6% to 99.0%).

There were no significant drug-drug interactions with anti-retroviral therapies.

Adverse Events

Most common AEs: pyrexia (8%), URTI (6%), cough (6%), dizziness (5%), headache (5%).

One treatment emergent serious adverse event of acute kidney injury was assessed as possibly related to study treatment (sofosbuvir).

Treatment Emergent Adverse Events (TEAE) - Safety set (n=603)

TEAEs		RDV + SOF 12 weeks Non-Cirrhotic	RDV + SOF 24 weeks Cirrhotic	Overall
Grade 3 TEAE	Any TEAE	16 (4%) [41]	17 (7%) [26]	33 (5%) [67]
	Treatment related	2 (1%) [2]	3 (1%) [7]	5 (1%) [9]
Grade 4 TEAE	Any TEAE	1 (<1%) [1]	1 (<1%) [1]	2 (<1%) [2]
	Treatment related	0 (0%) [0]	0 (0%) [0]	0 (0%) [0]
Deaths	Any deaths	0 (0%) [0]	1 (<1%) [1]	1 (<1%) [1]
	Treatment related	0 (0%) [0]	0 (0%) [0]	0 (0%) [0]
TE SAE	Any TESAE	17 (5%) [20]	19 (8%) [22]	36 (6%) [42]
	Treatment related	1 (<1%) [1]	0 (0%) [0]	1 (<1%) [1]

Data are presented as number of subjects (percentage of subjects) [number of events]
Individual subjects may have experienced several adverse events of different grades.

Two additional deaths occurred after the 24-week post-treatment visit: both were unrelated to study treatment or to liver disease.

CONCLUSIONS

In this study, Ravidasvir with sofosbuvir was well tolerated with excellent safety and efficacy in HCV infection, including in difficult to treat populations, making it suitable for implementation in public health settings.

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