Real-world Outcomes in Patients With Chronic Hepatitis C Virus Infection With Opioid Substitution Therapy, Mental Disorders, or Alcohol Use Disorder Treated With Glecaprevir/Pibrentasvir: Data From the German Hepatitis C-Registry

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Disclosures

- **S Christensen** has received honoraria for consulting or speaking at educational events for AbbVie, Gilead, Indivior, Janssen-Cilag, MSD, and ViiV

Data were derived from the **German Hepatitis C-Registry** (Deutsches Hepatitis C-Register), a project of the German Liver Foundation (Deutsche Leberstiftung), managed by Leberstiftungs-GmbH Deutschland in cooperation with the Association of German gastroenterologists in private practice (bng).

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Background/aims

- Treatment of chronic HCV infection can improve patient-reported outcomes (PROs) and monitoring PROs is an important aspect of HCV management
  - However, data on PROs are limited in real-world studies, particularly in patient subgroups that are key to achieving HCV elimination

- **Aims of this study:** To evaluate the real-world effectiveness and safety of glecaprevir/pibrentasvir (G/P) treatment and its impact on PROs in these key subgroups within the German Hepatitis C-Registry (DHC-R)
  - Patients on opioid substitution therapy (OST)
  - Patients with active drug use
  - Patients with mental disorders
  - Patients with alcohol use disorder (AUD)

HCV, hepatitis C virus.

Methods

Study design

- The DHC-R is an ongoing, non-interventional, multicenter, prospective, observational cohort study on the treatment of adults with chronic HCV infection*
  - Currently, the DHC-R includes ~15,500 patients recruited by >250 centers
- Data were collected from August 2, 2017 to January 20, 2019 for patients treated with G/P on-label (142 sites)

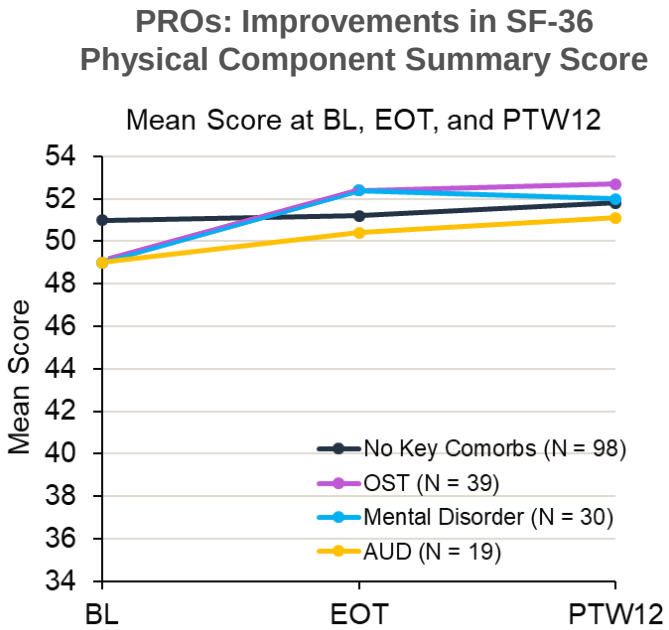
Study endpoints

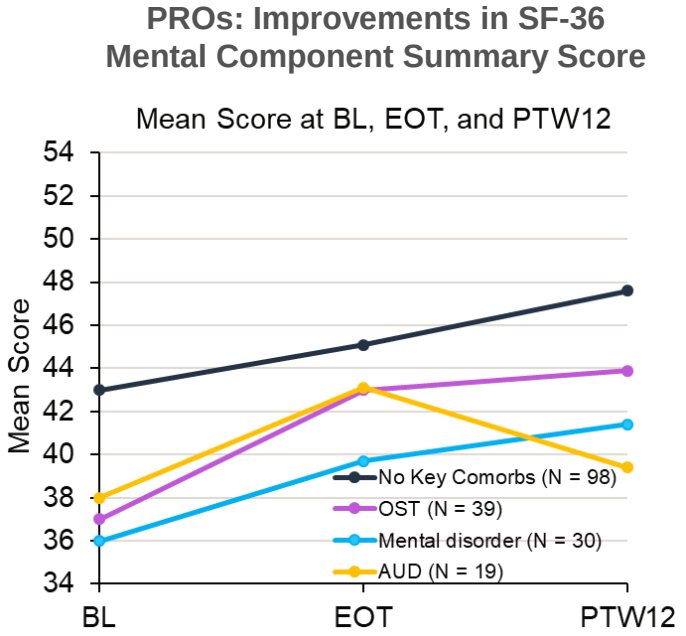
- SVR12 (HCV RNA ≤25 IU/mL) in the effectiveness population (N = 998)
- PROs (SF-36) in patients with data at BL, EOT, and PTW12 (N = 178)
- Safety and tolerability

*Registered at the Federal Institute for Drugs and Medical Devices (BfArM; number 2493) and in the German Clinical Trials Register (DRKS; ID DRKS00009717).

BL, baseline; DHC-R, German Hepatitis-C Registry; EOT, end of treatment; G/P, glecaprevir/pibrentasvir; HCV, hepatitis C virus; PRO, patient-reported outcome; PTW12, post-treatment Week 12; RNA, ribonucleic acid; SF-36, 36-Item Short Form Health Survey; SVR12, sustained virologic response at post-treatment Week 12.

Results





Patients who discontinued G/P prematurely and achieved SVR12 were counted as virologic responders. mITT analysis excluded: patients who discontinued G/P prematurely and did not achieve SVR12; patients who were LTFU; patients with HCV reinfection. Data for patients with active drug use are not presented because of the small number of patients with available data at all timepoints (N = 3).

AUD, alcohol use disorder; BL, baseline; Comorbs, comorbidities; EOT, end of treatment; G/P, glecaprevir/pibrentasvir; HCV, hepatitis C virus; ITT, intention-to-treat; LTFU, lost to follow-up; mITT, modified ITT; OST, opioid substitution therapy; PRO, patient-reported outcome; PTW12, post-treatment Week 12; SF-36, 36-Item Short Form Health Survey; SVR12, sustained virologic response at post-treatment Week 12.

Conclusions/implications

- In the real world, G/P treatment was highly effective, with an mITT SVR12 rate of 99.5% overall (ITT: 96.6%) and similarly high rates among key subgroups
  - There were 5 (0.5%) virologic failures, 6 (0.6%) reinfections, and 23 (2.3%) patients who discontinued or were lost to follow-up
- G/P treatment was safe and well tolerated
  - Discontinuations due to adverse events were rare (0.2%)
- G/P treatment led to improvements in SF-36 component scores up to PTW12, indicating a positive impact on patients' quality of life in real-world settings
  - Patients with key comorbidities had lower mental component summary scores at baseline compared with patients without these comorbidities, emphasizing the need for treatment especially in these subgroups

G/P, glecaprevir/pibrentasvir; ITT, intention-to-treat; mITT, modified ITT; PTW12, post-treatment Week 12; SF-36, 36-Item Short Form Health Survey; SVR12, sustained virologic response at post-treatment Week 12.

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- AbbVie sponsored the study, contributed to its design, and participated in the collection, analysis, and interpretation of the data and in the writing, reviewing, and approval of the presentation. All authors had access to relevant data, and participated in the writing, review, and approval of the presentation
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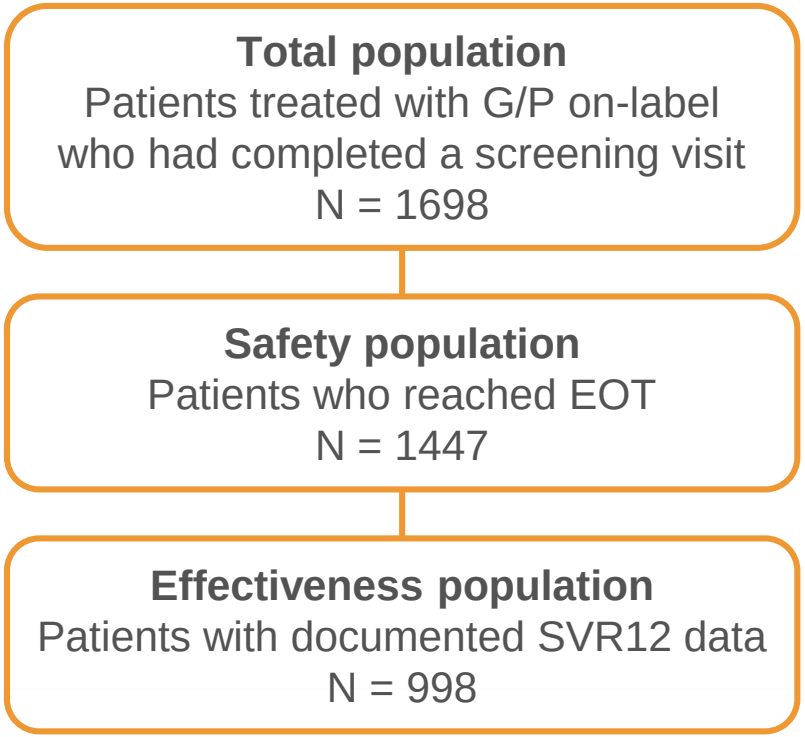
DHC-R, German Hepatitis-C Registry..

Back-up slides

Methods

Patient Selection



G/P, glecaprevir/pibrentasvir; EOT, end of treatment; SVR12, sustained virologic response at post-treatment Week 12.

Results

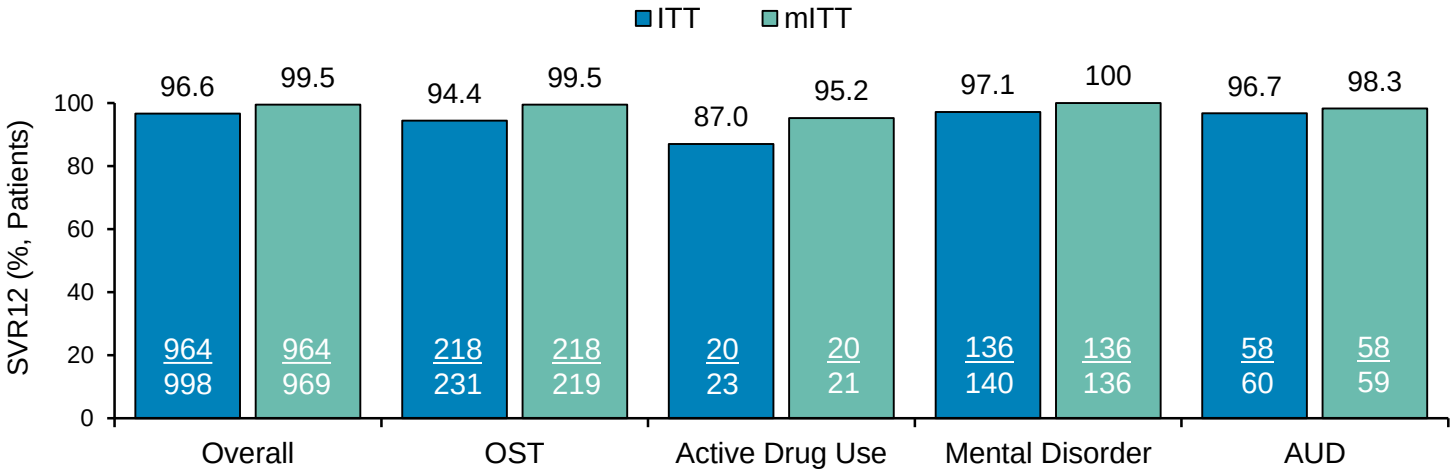
Demographics and Clinical Characteristics at Baseline

Characteristic	Total Population N = 1698	No Key Comorbidities* N = 985	OST N = 439	Active Drug Use N = 47	Mental Disorder N = 247	AUD N = 106
Male	1170 (69)	615 (62)	348 (79)	39 (83)	175 (71)	84 (79)
Age, median (range), years	46 (18–87)	48 (18–87)	43 (21–69)	43 (23–65)	46 (18–83)	47 (18–66)
HCV genotype						
1	892 (53)	541 (55)	204 (46)	20 (43)	126 (51)	51 (48)
2	104 (6)	60 (6)	27 (6)	6 (13)	18 (7)	7 (7)
3	590 (35)	323 (33)	189 (43)	20 (43)	86 (35)	40 (38)
4	79 (5)	37 (4)	15 (3)	1 (2)	15 (6)	5 (5)
Other†	33 (2)	24 (2)	4 (<1)	0	2 (<1)	3 (3)
HCV RNA, median (IQR), Log_{10} IU/mL	6.1 (5.4–6.6)	6.0 (5.5–6.6)	6.1 (5.4–6.6)	6.5 (5.7–6.9)	6.2 (5.4–6.7)	6.1 (5.5–6.7)
HCV treatment-naïve	1514 (89)	885 (90)	387 (88)	41 (87)	215 (87)	98 (92)
Non-cirrhotic	1585 (93)	924 (94)	402 (92)	42 (89)	229 (93)	92 (87)
HCV treatment-naïve non-cirrhotic‡	1421 (84)	837 (85)	354 (81)	37 (79)	201 (81)	85 (80)
Platelets per µL, median (range)§	217,000 (31,000–616,000)	220,000 (31,000–616,000)	206,000 (36,000–564,000)	198,000 (47,000–336,000)	220,000 (69,000–564,000)	211,000 (57,000–468,000)

*No OST; no active drug use; no mental disorder; no AUD; no HIV coinfection. †Patients with GT5, GT6, mixed genotypes (GT1+GT2, GT1+GT3, GT1+GT4, or GT3+GT4), or unknown genotypes.
‡Received G/P for 8 weeks. §Data available for: total population, N = 1578; no key comorbidities, N = 898; OST, N = 423; active drug use, N = 47; mental disorder, N = 235; AUD, N = 99.
Data are n (%) unless otherwise stated. AUD, alcohol use disorder; G/P, glecaprevir/pibrentasvir; GT, genotype; HCV, hepatitis C virus; HIV, human immunodeficiency virus; IQR, interquartile range; OST, opioid substitution therapy; RNA, ribonucleic acid.

Results

Efficacy: SVR12 Rates Overall and in Key Subgroups



	Overall		OST		Active Drug Use		Mental Disorder		AUD	
Virologic failure	5	5	1	1	1	1	0	0	1	1
HCV reinfection	6	0	3	0	1	0	1	0	0	0
Discontinued or LTFU	23	0	9	0	1	0	3	0	1	0

Patients who discontinued G/P prematurely and achieved SVR12 were counted as virologic responders. mITT analysis excluded: patients who discontinued G/P prematurely and did not achieve SVR12; patients who were LTFU; patients with HCV reinfection.

AUD, alcohol use disorder; G/P, glecaprevir/pibrentasvir; HCV, hepatitis C virus; ITT, intention-to-treat; LTFU, lost to follow-up; mITT, modified ITT; OST, opioid substitution therapy; SVR12, sustained virologic response at post-treatment Week 12.

Results

Safety

Adverse Event, n (%)	Safety Population N = 1447
Any AE	379 (26)
Any serious AE*	17 (1)
Any serious AE possibly related to G/P†	3 (<1)
AE leading to drug discontinuation‡	3 (<1)
Deaths	0
AEs in ≥5% of all patients	
Fatigue	132 (9)
Headache	94 (6)

Laboratory Abnormalities, n (%)	Safety Population N = 1447
Alanine aminotransferase	
>5 × ULN	0/1331
Aspartate aminotransferase	
>5 × ULN	3/1251 (<1)
Total bilirubin	
≤1.5 × ULN	1154/1196 (96)
>1.5–3 × ULN	34/1196 (3)
>3–5 × ULN	8/1196 (<1)§
>5 × ULN	0/1196

*MedDRA preferred terms: 1 case each of limb abscess, atrial flutter, B-cell small lymphocytic lymphoma, cardiac failure, circulatory collapse, colitis, coronary artery disease, dependence, detoxification, drug dependence, headache, humerus fracture, injection-site abscess, Ménière's disease, pleural effusion, suicide attempt, and vomiting.

†Ménière's disease, pleural effusion, and vomiting.

‡1 patient discontinued owing to nausea; 1 patient discontinued owing to diarrhea; 1 patient discontinued owing to vomiting.

§The 8 patients with total bilirubin >3 × ULN were different from the 3 patients with aspartate aminotransferase >5 × ULN.

AE, adverse event; G/P, glecaprevir/pibrentasvir; MedDRA, Medical Dictionary for Regulatory Activities; ULN, upper limit of normal.