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Background

Best practices in the management of viral hepatitis have undergone significant changes in recent years, challenging healthcare providers (HCPs) to keep up with an evolving standard of care. Evidence suggests that many HCPs do not rapidly incorporate new data and recommendations into their management approaches for viral hepatitis.

This study evaluated data from a series of educational activities to determine knowledge and competence gaps for HCPs in key areas of contemporary viral hepatitis management. In addition, the value of timely, expert-led educational interventions in closing these gaps was evaluated.

Methods

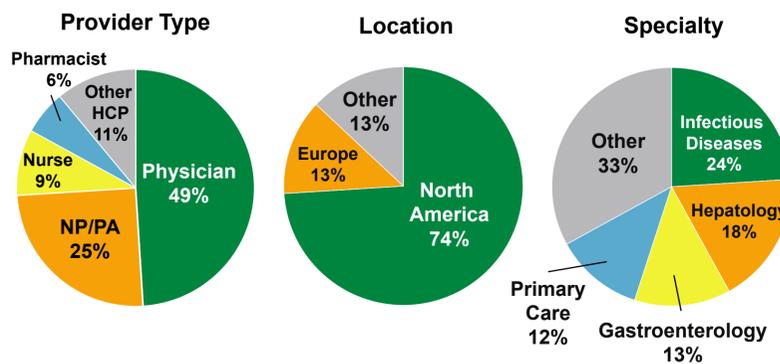
In this study, we analyzed baseline knowledge and subsequent learning in HCPs who participated in a series of live, expert-led educational webinars that occurred between October 2017 and January 2018 on topics relevant to contemporary management of viral hepatitis, including first-line HCV therapy, retreatment following DAA failure, post-SVR surveillance and management, and HBV therapy.

For each webinar, participants were asked a case-based, multiple-choice competence question based on the learning objective for the program at the following stages: immediately prior to the live meeting (baseline), immediately following the informing content during the live meeting (post content), and via email following educational reinforcements (a summary email and link to an expert-authored, case-based commentary), which concluded approximately 2 months after the live meeting (follow-up). We analyzed responses of participating HCPs at each stage to determine knowledge gaps and the impact of educational interventions.

Results

Participant Demographics

- 1495 learners attended a live webinar



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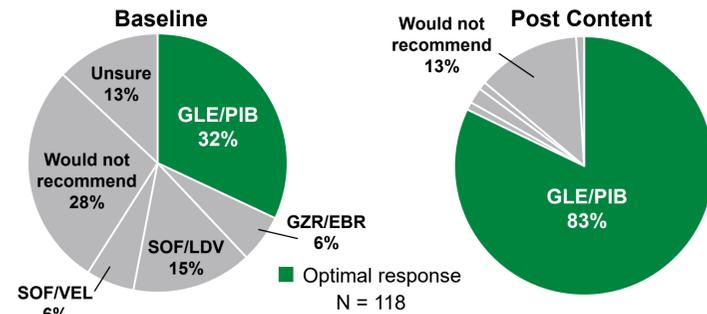
Results

Gaps in Provider Knowledge and Impact of Live Education

Topic 1: First-line HCV Therapy

Case: 53-year-old white man newly diagnosed with GT1a HCV infection, F3 fibrosis, HCV RNA 7,640,000 IU/mL

Question: Based on the current AASLD/IDSA recommendations, which regimen would you recommend for 8 weeks?

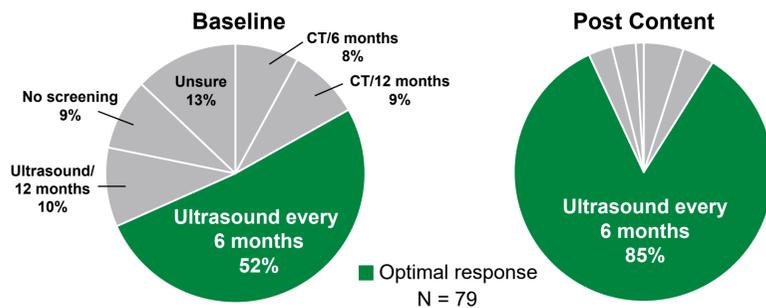


Stage	Notable Findings
Baseline	<ul style="list-style-type: none"> Only 32% selected the optimal 8-week therapy for this patient 27% would use an 8-week course of regimens not recommended at that duration for this type of patient 28% would not recommend an 8-week regimen for this patient despite eligibility and guideline recommendations
Post Content	<ul style="list-style-type: none"> Significant improvement in optimal answer from baseline ($P < .0001$) 13% still would not recommend 8-week therapy, suggesting possible ingrained preference or need for further education

Topic 3: HCC Screening After SVR

Case: 59-year-old white man with GT1a HCV; achieved SVR12 with 12-week SOF/VEL; F3 fibrosis

Question: Based on the current AASLD/IDSA and EASL recommendations, how would you screen this patient for HCC?

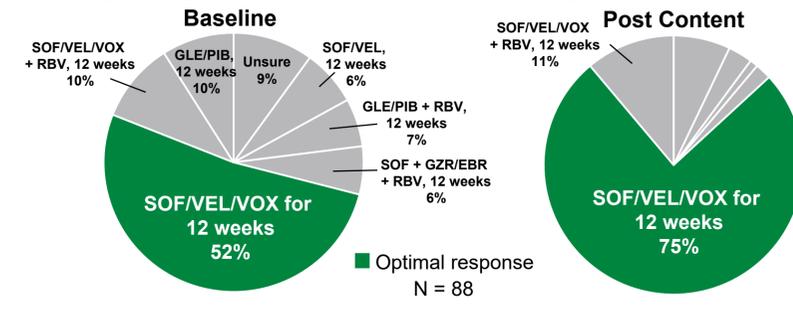


Stage	Notable Findings
Baseline	<ul style="list-style-type: none"> Almost one half of respondents were unable to identify the guideline-recommended screening interval/modality for the case patient 9% would not offer further screening for this patient
Post Content	<ul style="list-style-type: none"> Significant improvement in optimal answer from baseline ($P < .0001$) 9% would recommend CT scans instead of ultrasound

Topic 2: Retreating After NS5A Inhibitor Failure

Case: 65-year-old white man with GT1a HCV, compensated cirrhosis, failure of 12-week SOF/LDV as initial treatment (posttreatment Week 4 relapse)

Question: Based on the current AASLD/IDSA recommendations, which of the following would you choose as the best therapeutic regimen for this patient?

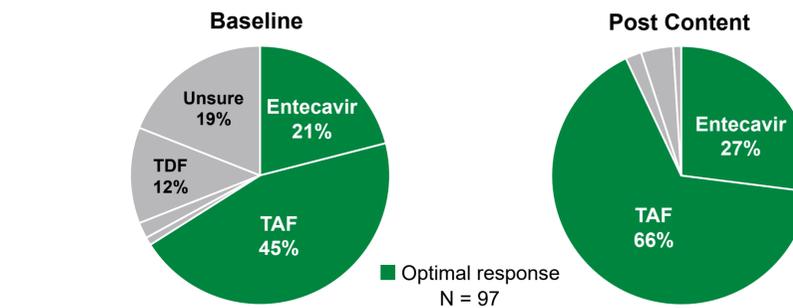


Stage	Notable Findings
Baseline	<ul style="list-style-type: none"> Almost one half of respondents were unable to select the guideline-recommended treatment regimen for the case patient 17% selected a GLE/PIB-based regimen, although GLE/PIB is considered an alternative recommendation of the AASLD/IDSA 23% selected a regimen that included RBV
Post Content	<ul style="list-style-type: none"> Significant improvement in optimal answer from baseline ($P = .0005$) 11% would continue to recommend the addition of RBV to SOF/VEL/VOX

Topic 4: First-line HBV Therapy

Case: 62-year-old woman from Vietnam with previously untreated HBeAg-negative chronic HBV; HBV DNA: 2100 IU/mL; ALT/AST: 35/49 U/L; CrCl: 42 mL/min; TE: 12.7 kPa; US: slightly nodular liver, mild splenomegaly

Question: Which of the following HBV therapies do you choose for this patient?

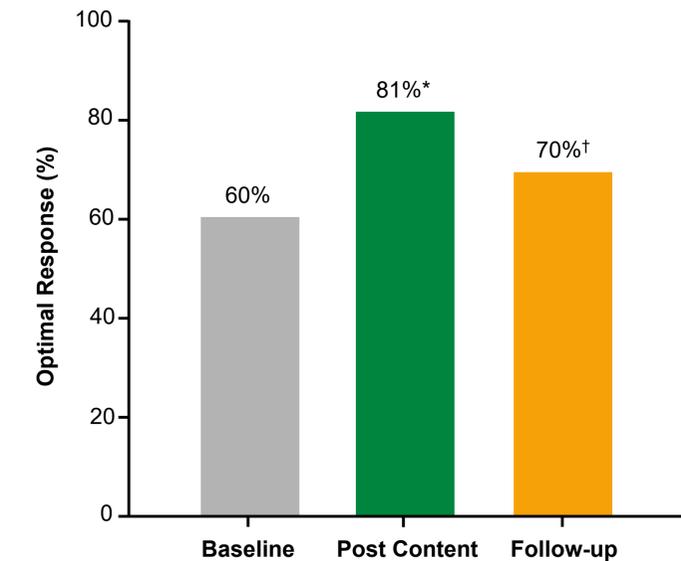


Stage	Notable Findings
Baseline	<ul style="list-style-type: none"> 34% did not select optimal therapy for this patient 12% would select TDF for a patient with decreased renal function Twice as many chose TAF vs entecavir
Post Content	<ul style="list-style-type: none"> Significant improvement in optimal answer from baseline ($P < .0001$) The predominant shift was away from a choice of Unsure or TDF toward the selection of TAF (+21%)

Engagement and Impact of Educational Reinforcement

- In an analysis of participants who answered a question at baseline, post content, and follow-up, **lack of reinforcement was associated with knowledge regression** (Figure)
 - In a very small subset of participants who engaged in reinforcement education, reinforcement appeared to improve retention

All Questions, Unknown/No Reinforcement



Matched individual responses (N = 43).

*P = .0325 vs baseline.

†P = .3652 vs baseline.

Conclusions

- Clear practice gaps were observed in numerous key areas of contemporary viral hepatitis management; these included the use of recently approved HCV treatment regimens and HCC screening in patients with HCV who achieved SVR
- Live education was effective in improving learners' treatment intentions assessed through case vignettes

