Incidence and Cost of Treatment-Emergent Comorbid Events in an Insured Population Receiving Treatment for Chronic Hepatitis C (CHC) Virus Infection

Sapra S,1 Chang E,2 Broder M,2 L’Italien G1,3
1Bristol-Myers Squibb, Lawrenceville, NJ, USA, 2Partnership for Health Analytic Research, LLC, Beverly Hills, CA, USA, 3Yale University School of Medicine, New Haven, CT, USA

Background and Objectives

- Chronic hepatitis C (CHC) virus infection, with a worldwide prevalence of 2%-3%,1 causes substantial loss of life and reduces quality of life in those who are infected.2
- For patients with CHC genotype 1, 48 weeks of pegylated interferon alfa (PEG-alfa) and ribavirin (RBV) is the standard treatment, whereas in patients with genotypes 2 and 3, 24 weeks is adequate.3
- Patients who are able to maintain at least 80% adherence to their drug regimen have the highest likelihood of achieving sustained virologic response, but treatment-emergent comorbid events commonly limit adherence.1,3

Methods

- Retrospective cohort analysis of healthcare claims from the Illigens Labids database.
- Inclusion criteria: Treated with alfalfa/RBV during the identification period; AND 11 medical claim with an ICD-9-CM code for CHC (070.41, 070.40, 070.51, 070.54, 070.74) during the preindex period; AND initial prescription for both drugs filled within 14 days of one another.
- Exclusion criteria: <18 years of age; not continuously enrolled during the entire study period; not a new start or a therapy started at nonrecommended dose; diagnosis of other condition for which these drugs may have been used (e.g., hepatitis B, Hodgkin’s lymphoma, multiple myeloma).
- Index date was the date of first fill for alfalfa/RBV within the identification period. Twelve months before was defined as the preindex period, and 12 months after was the postindex period.
- Treatment-emergent comorbid events were defined as a medical claim with a diagnosis for a condition in the postindex period that was not present in the preindex period.
- Net incremental cost was calculated as the difference between preindex and postindex costs for these comorbidities and their treatments, excluding cost of alfalfa/RBV.

Results

- Of 3,795 newly treated patients, 1,269 met the inclusion criteria.
- Most exclusions (2,274) were those who did not meet the continuous enrollment criteria.
- On average, patients who were newly treated for CHC had greater costs of treating these events in insured patients initiating PEG-alfa and RBV therapy for 460 days.

Conclusions

- Overall, these findings consistently indicate that a substantial proportion of patients discontinue therapy prematurely in clinical care settings.4,5
- Despite the frequency and affect on treatment, little is known about the cost associated with these adverse events.6
- The objective of this study was to estimate the incidence of treatment-emergent comorbid events and the incremental costs of treating these events in insured patients initiating PEG-alfa and RBV therapy for CHC.

References

2. Speger WR, Hepatology 2005
3. McHutchinson JG, Gastroenterology 2002
5. Fried MA, Hepatology 2002

Supported by funding from Bristol-Myers Squibb Company
OBJECTIVES: To estimate the incidence of treatment-emergent comorbid events and incremental costs of treating these events in insured patients initiating pegylated interferon alfa (peg-alfa) and ribavirin (RBV) treatment for CHC.

METHODS: In a retrospective cohort analysis of healthcare claims from a US insurer, we studied CHC patients newly treated with peg-alfa/RBV between 2006-2008 and continuously eligible for 12 months before/after treatment initiation. Treatment-emergent comorbid events were defined by new medical/pharmacy claims for predefined conditions in the 12 months after treatment initiation. The net incremental cost of treatment-emergent comorbidities was calculated as the difference between baseline and follow-up costs for these comorbidities and their treatment, excluding cost of peg-alfa/RBV. Baseline measures including age, gender, and region were used in a multivariate model to identify factors associated with treatment-emergent comorbid event charges.

RESULTS: Of 3,795 newly treated patients, 1,269 (mean age=50.2 [SD 7.7], 36.2% female) met the selection criteria. The mean cost of peg-alfa/RBV treatment was $25,612 (SD $13,289). New treatment-emergent events were common, with 61.6% of patients having ≥ 1 event. Anemia was identified in 29.2% of patients, fatigue in 16.4%, depression in 11.5%, and neutropenia in 10.9%. The mean incremental cost for the pre-defined treatment-emergent comorbid events in the post-index period was $6,377 (SD $22,326); $2,783 for medical and $3,595 for pharmacy claims. Age ≥ 60 and female gender were significantly associated with higher charges in the multivariate model.

CONCLUSIONS: In an insured US cohort with CHC, treatment-emergent comorbidities with peg-alfa/ RBV were common and increased cost by $6,000/treated patient. This excludes indirect costs and is therefore a conservative estimate. Costs might increase with the use of triple therapy with peg-alfa/RBV and a protease inhibitor, as additional treatment-emergent comorbid events may be expected. Better-tolerated therapies that reduce the financial burden on the healthcare system costs and improve patient experience are desirable.
Please visit the ISPOR website at the following link for further presentation information:
http://www.ispor.org/congresses/spain1111/Poster_information.asp

Registration information is available at the ISPOR website at: https://www.ispor.org/EventReg/DisplayEvent.aspx?eventId=36

From: "Sapra, Sandhya" <Sandhya.Sapra@bms.com>
Date: August 16, 2011 10:12:02 AM GMT-07:00
To: michael broder <mbroder@pharllc.com>
Subject: FW: ISPOR 14th Annual European Congress: Poster Presenter Reminder
FYI- see below
Gil is going so he will present

-----Original Message-----
From: Sapra, Sandhya
Sent: Tuesday, August 16, 2011 12:55 PM
To: stuckerson@ispor.org
Cc: LItalien, Gilbert
Subject: RE: ISPOR 14th Annual European Congress: Poster Presenter Reminder
Hi Steve,
Please note that I will not be able to present this poster but Dr.L'Italien (cc'ed) here and a co-author on the poster will be presenting instead.

Please let me know if you have any questions.

Thanks,
Sandhya

-----Original Message-----
From: stuckerson@ispor.org [mailto:stuckerson@ispor.org]
Sent: Thursday, August 11, 2011 5:41 PM
To: Sapra, Sandhya
Subject: ISPOR 14th Annual European Congress: Poster Presenter Reminder

To: Sandhya Sapra

Congratulations once again on the acceptance of your research abstract:
PGI1: INCIDENCE AND COST OF TREATMENT-EMERGENT COMORBID EVENTS IN AN INSURED POPULATION RECEIVING TREATMENT FOR CHRONIC HEPATITIS C (CHC) VIRUS INFECTION

for poster presentation at the ISPOR 14th Annual European Congress to be held 5-8 November 2011 at the Hotel Auditorium Madrid in Madrid, Spain.

Here are a few reminders leading up to the meeting:

*****AUTHORS/PRESENTERS*****
Please be advised that you must contact ISPOR no later than Friday, 26 August 2011 if another author will be presenting in your place or if you will be withdrawing your presentation from the ISPOR 14th Annual European Congress. Failure to notify ISPOR of a withdrawal may impact acceptance of future papers submitted to ISPOR.

*****MEETING REGISTRATION*****
The early registration deadline for this meeting is Tuesday, 20 September 2011. Please complete the registration form at: https://www.ispor.org/EventReg/DisplayEvent.aspx?eventId=36 if you have not already done so.

*****POSTER PRESENTATION INFORMATION*****
For more information on poster instructions, please visit: http://www.ispor.org/congresses/spain1111/Poster_information.asp.

*****POSTER PRODUCTION SERVICES*****
ISPOR Members receive a 20% discount on poster productions services from Sci For, Inc. Sci For also provides a free PDF file of your poster presentation, which can be displayed on the ISPOR website. For more information on poster production visit: http://www.ispor.org/congresses/spain1111/presenters_instructions.asp and select Poster Production Service.

*****HANDOUTS*****
You are required to bring handouts of your poster presentation. It is suggested that you bring a minimum of 200 copies.

If you have any questions or concerns, contact the ISPOR World Headquarters at 1-609-219-0773 x23 or via email at stuckerson@ispor.org.

Best regards,

Steve Tuckerson
Senior Manager, Meetings
stuckerson@ispor.org