

boceprevir have recently been approved in Europe in combination with pegINF and RBV for the treatment of patients with genotype 1 HCV who have not been treated previously or when standard treatment has failed. They are serine protease inhibitors and belong to a new class of drugs: direct acting antivirals (DDAs).

**Purpose** To evaluate the pharmacoeconomic aspects of triple therapy with RBV, pegIFN and telaprevir or boceprevir, as reported in the literature.

**Materials and Methods** Cut-off guidelines have been established to quantify the suitability of new treatments based on the cost of treatment per quality-adjusted life year (QALY). The impact of using the new drugs was assessed on a hypothetical group of 14,000 patients infected with HCV (genotype 1). Unfortunately the price of the new drugs has not yet been negotiated in Italy; this represents a limit on the evaluation. The results are expressed in terms of Incremental cost-effectiveness ratios (ICERs).

**Results** The cost was estimated at €31,000/patient, 236.5 M€ over a period of 30 years. The ICER calculated to 20 years was €29,485/QALY while at 30 years was €18,291/QALY. Investment in these new molecules is favourable from a time horizon of 20 years.

**Conclusions** Boceprevir and telaprevir with standard treatment are cost effective considering the lifetime incidence of liver complications, quality-adjusted life years and the incremental cost-effectiveness ratio. The cost effectiveness depends on the adherence to the treatment; it could be improved if the diagnostic and therapeutic pathways were optimised.

No conflict of interest.

#### DGI-054 POST-PANDEMIC INFLUENZA A (H1N1) INFECTION IN CRITICALLY ILL PATIENTS PREVIOUSLY VACCINATED

doi:10.1136/ejhp-2013-000276.320

<sup>1</sup>L Canadell Vilarrasa, <sup>2</sup>AH Rodriguez Oviedo, <sup>2</sup>E Diaz Santos. <sup>1</sup>Hospital Universitari Joan XXIII de Tarragona, Pharmacy, Tarragona, Spain; <sup>2</sup>Hospital Universitari Joan XXIII de Tarragona, ICU, Tarragona, Spain

**Background** The A H1N1 2009 virus caused a worldwide pandemic during 2009. Vaccination of high-risk individuals was one of the recommendations of the World Health Organization before the post-pandemic period. Since this period, influenza activity has again associated with A H1N1 virus in Spain.

1059 cases of severe flu were hospitalised during the post-pandemic period in Spain and 41% of them were admitted to the ICU. The status of influenza vaccination was determined in 92% of the ICU patients.

**Purpose** To compare differential characteristics in morbidity, mortality and clinical manifestations of vaccinated patients who were admitted to Spanish ICUs during the flu season 2010–11 versus unvaccinated patients.

**Materials and Methods** Prospective, observational and multicentre study performed in 148 ICUs. Data were recorded in the GETI/SEMICYUC registry. Adult patients with influenza A (H1N1) confirmed by rt-PCR were included in the analysis. Database records discriminated between having or not having been vaccinated.

**Results** 397 patients were admitted to Spanish ICUs during the post-pandemic period 2010/11 and supplied information about previous vaccination. A total of 22 (5.8%) patients had previously been vaccinated.

Vaccinated patients had a higher percentage of comorbidities compared to the other patients, (95.5% vs. 74.1%;  $p = 0.021$ ). The mean number of comorbidities was also higher in vaccinated patients [1.91 (1.41) vs. 1.18 (0.99);  $p = 0.026$ ].

Vaccinated patients showed higher rate of overall pneumonia but not bacterial coinfection. They received empiric antiviral treatment in a similar percentage and dosage, but they were treated for less time [6.9 (4.07) days vs. 8.99 (3.76) days;  $p = 0.003$ ]. There was

2 days of delay in the initiation of empiric antiviral treatment in vaccinated patients (7.64 vs. 5.59 days), although it was not statistically significant. Data also showed that a greater percentage of vaccinated patients were treated with zanamivir compared to the rest of the group (22.7% vs. 5.3%  $p = 0.008$ ). Vaccinated patients did not differ from the rest of the group in time from onset of symptoms, days to hospital admission or time until diagnosis.

**Conclusions** Clinical presentation, management and antiviral treatment was different in patients who had been previously vaccinated against influenza A (H1N1) virus.

No conflict of interest.

#### DGI-055 PROTEASE INHIBITORS: NEW DRUGS FOR TREATMENT OF CHRONIC HEPATIS C

doi:10.1136/ejhp-2013-000276.321

M Pérez Abánades, C Martínez Nieto, E Alañón Plaza, A Aranguren Oyarzábal, E Deben Tiscar, E Ramírez Herráiz, T Gallego Aranda, A Ibañez Zurriaga, A Morell Baladrón. Hospital universitario la Princesa, Servicio de Farmacia, Madrid, Spain

**Background** The protease inhibitors boceprevir and telaprevir are indicated for treatment of chronic hepatitis C (CHC) genotype 1 in combination with peginterferon-alfa and ribavirin. These drugs increase efficacy and adverse effects.

**Purpose** To study the effectiveness and safety of boceprevir and telaprevir for treatment of CHC.

**Materials and Methods** Retrospective observational study including all patients who started treatment with telaprevir or boceprevir for treatment of CHC from January to September 2012.

Collected data: age, sex, type of patient (treatment-naive, recurrent or non-responder), liver fibrosis, HIV coinfection, viral loads at weeks 0, 4, 8, 12, 24 to evaluate efficacy and adverse effects and supportive treatment to evaluate safety.

**Results** We included 51 patients, 35 (70%) men and 15 (30%) women, with a mean age of 51 years. 5 patients were co-infected with HIV (off-label use).

Abstract DGI-055 Table 1 Baseline characteristics

	Telaprevir	Boceprevir
<b>Patients</b>	29 (58%)	21 (42%)
<b>Type of patient</b>		
treatment-naive	5 (17.24%)	4 (19.05%)
recurrent	4 (13.79%)	10 (47.62%)
non-responder	20 (68.97%)	7 (33.33%)
<b>Liver fibrosis</b>		
0–1	6 (20.69%)	1 (4.76%)
2	6 (20.69%)	2 (9.52%)
3–4	17 (58.62%)	19 (90.48%)

Abstract DGI-055 Table 2 Efficacy and safety

	Telaprevir	Boceprevir
<b>Negative viral loads at week</b>		
4	15/23 (65.22%)	7/15 (46.67%)
8	18/21 (85.71%)	8/14 (57.14%)
12	19/19 (100%)	4/5 (80.00%)
24	8/8 (100%)	1/1 (100%)
<b>Anaemia</b>		
Reduced dose of ribavirin	6 (20.69%)	6 (28.57%)
Treatment with erythropoiesis-stimulating agent	2 (6.90%)	1 (4.76%)
Discontinued	1 (3.45%)	1 (4.76%)
<b>Neutropenia</b>		
Reduction dose of peginterferon-alfa	2 (6.90%)	4 (19.05%)
Treatment with granulocyte colony-stimulating factor (G-CSF)	1 (3.45%)	4 (19.05%)
<b>Rash</b>		
Discontinued	1 (3.45%)	0 (0%)