Institut Català de la Salut
Hospital Universitari
Arnau de Vilanova

Cost-Effectiveness of triple therapy for hepatitis C compared with dual therapy inclinical practice

Pons N[1], Cano SM[1], Schoenenberger JA[1], Aragones A[1], Gilabert M [1], Martinez M[1], Martinez B[1], Mangues I[1].
Hospital Universitari Arnau de Vilanova, Pharmacy, Lleida, Spain

OHP-028

OBJECTIVES

Hepatitis C (HepC) is a viral disease for which curative treatment exists since the advent of protease inhibitors (PI). They are very effective but also cause the occurrence of adverse events (AEs), mainly haematological. The objective of the present study was to ***compare the cost effectiveness of double therapy with interferon plus ribavirin compared with a triple therapy that includes in addition a PI.***

METHODS

A cross sectional and retrospective study on a level II hospital was performed that included patients with genotype 1 and > 3 months on treatment. Computerized medical records were reviewed in order to register the outcome of treatment defined as sustained viral response (SVR) or failure, as it was done with the occurrence of anaemia and neutropenia. The prescription data of colony stimulating factors (CSFs) and the cost estimate was obtained from the pharmacy management program.

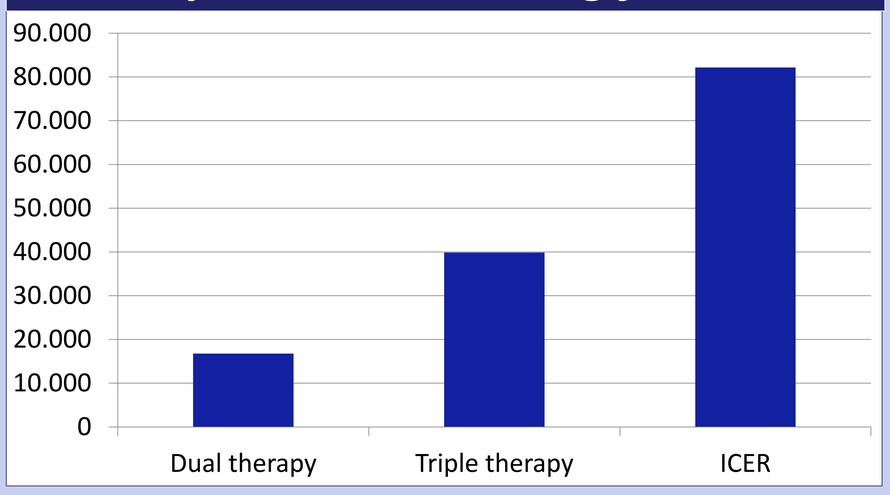
Table 1: Protocol to follow to address EA
-Reduce the dose of RBV or INT.
-Add growth factors
-Blood or platelet transfusions

RESULTS

Table 2: Patient characteristics	
Num patients	70
Sex	Men: 60 %
Age	48 ± 7
Treatment	Triple therapy: 47 %
Ip	Telaprevir: 60.6%

The characteristics of the study population are shown in Table 2. The median duration of treatment in patients that ended treatment (65) was 47 weeks (IQ: 40-47). In 43 patients (66%) a sustained viral response (SVR) was achieved. ***Patients that received triple therapy responded more than those who received dual therapy: 23/28 (82%) vs 20/37 (54%) with a relative risk of 1,52 (CI95%1,08-2,14)***. The absolute risk reduction (RAR) of no response was 28% (CI95%: 7-50%) and the number need to treat (NNT) was 3,56 (CI95%: 2,02-15,01).

Graphic 1: The mean global cost in euros of dual therapy, including hematopoietic stimulating factors



Haematological toxicity (neutropenia and/or anaemia) that needed stimulating growth factors support affected 30/70 patients (43%). ***The incidence of this adverse reaction was higher in the group receiving triple therapy than in the group receiving dual therapy, but the difference was not statistically significant: 16/28 (57,1%) vs 14/37 (37%) respectively***. The treatment of haematological toxicity adds an extra mean cost of 2490±2494 euros per course.

CONCLUSIONS

Treatment with triple therapy including telaprevir or boceprevir plus ribavirin and interferon is more effective than dual therapy with the last two but ***seems to cause more haematological toxicity***. However ***the ICER of the triple therapy is very high*** from the payer's perspective. Given the huge socioeconomic burden of hepatitis C, an approach based on cost-utility analysis would be preferable from a social perspective.

Institut Català de la Salut
Hospital Universitari
Arnau de Vilanova

eahp european association of hospital pharmacists
20th Congress of the EAHP
Hamburg, Germany - 25-27 March, 2015