COSTS AND QUALITY OF LIFE IN PATIENTS WITH LIVER TRANSPLANTATION

Fagiuoli S[1],Scalone L[2,3],Ciampichini R[2], Fusco F[2], Gaeta L[4],Del Prete A[4],Mantovani LG[1,5],Gardini I[6]

1 Ospedali Riuniti, Bergamo
2 CHARTA Foundation, Milan
3 CESP, Research Center of Public Health, University of Milano Bicocca, Monza
4 Azienda Ospedaliera Universitaria Federico II di Napoli, Napoli
5 CIRFF, Center of Pharmacoeconomics, Federico II University of Naples, Napoli
6 EPAC Onlus patients liver transplantation

Objective

Little is known about the overall burden of chronic liver diseases (CHDs) for the healthcare third payer, patients and their families. We performed a Cost of Illness study named CO.M.E. (COsti delle Malattie Epatiche), to assess medical and non medical (e.g., travel, formal care) direct costs, loss of productivity and Health Related Quality of Life (HRQoL) in patients with CHDs. The following results mainly pertain to patients who received liver transplantation (LT).

Methods

The CO.M.E. Study was a naturalistic, multicentre, retrospective (6 months of observational period) study involving adult patients with CHDs. Costs were assessed from the societal perspective and are reported as mean €/patient-month (direct costs) and mean days lost from work/study/usual activities per patient-month. Patients' HRQoL was assessed with the EQ-5D questionnaire and is reported as percentage of patients with problems and as mean+SD visual analogue scale (VAS) score.

Results

PATIENTS' DEMOGRAPHIC AND CLINICAL CHARACTERISTICS

Table 1. Sample description according to clinical and demographical condition

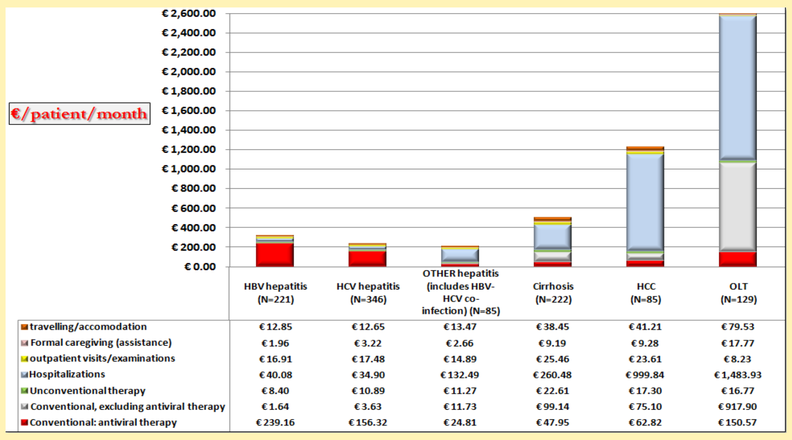
DISEASE CONDITION	Patients N (%*)	Male (%$)	Age Median (min-max)
Hepatitis	652 (59.9)	59.5	57.8 (19.9-83.1)
Cirrhosis	222 (20.4)	57.7	61.5 (36.0-82.4)
Liver transplanation	129 (11.9)	72.9	57.5 (18.9-71.8)
Hepatic Carcinoma	85 (7.8)	76.5	64.7 (37.4-89.5)
TOT	**1,088**	**62.0**	**59.5 (18.9-89.5)**

* percentages are referred to the total amount of patients enrolled
$ percentages are referred to the subgroup (disease condition) total amount of patients

From January to December 2011, 1,088 patients affected with different chronic hepatic conditions were enrolled. Demographical and clinical characteristics of patients are shown in Table 1. Etiological agents responsable for the disease conditions of the entire sample were HCV (50.6%), HBV (27.9%), HBV.HCV coinfection (1.3%), other etiology (20.2%). LT patients' etiological agents were HCV (26.4%), HBV (20.9%), HBV-HCV co-infection (1.6%), other etiology (51.2%).

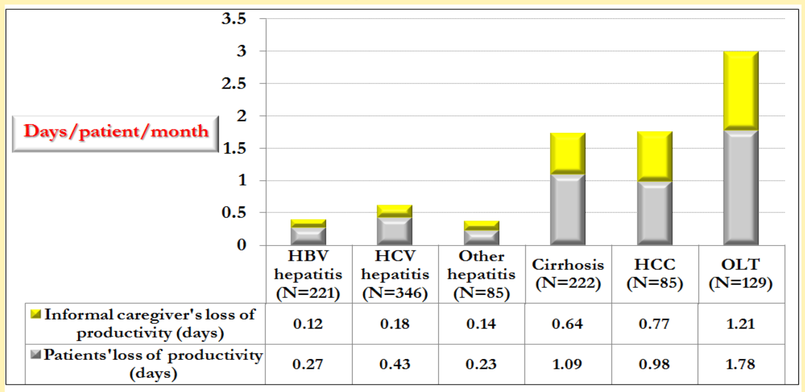
COSTS

DIRECT COSTS



Mean direct cost for LT patients were 2,674€/patient-month. Hospitalizations contributed to 55.5% of costs. Treatment contributed to 39.9% of costs (34.3% for conventional treatment and 5.6% for antiviral therapy). Outpatient (medical visits, examinations) contributed to 0.3% of costs. Non medical costs contributed to 3.7% of direct costs.

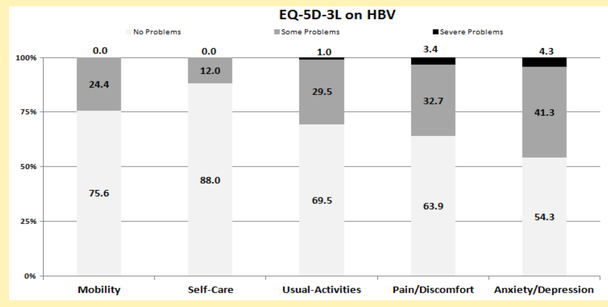
INDIRECT COSTS (Loss of Productivity*)

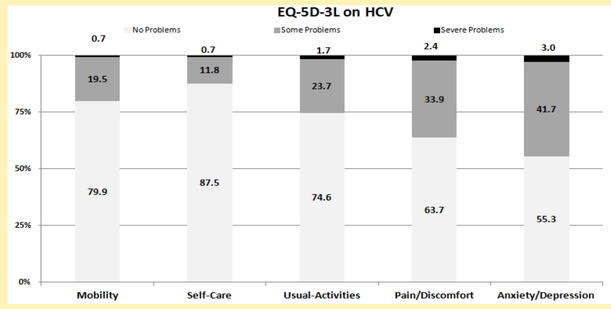


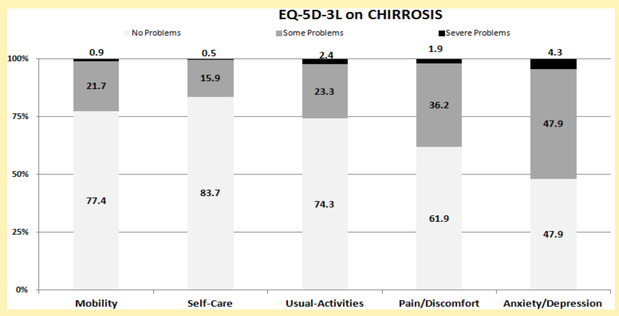
** It is reported as mean days lost from work/doing everyday activities per patient-month. Loss of productivity includes both paid work and unpaid activities, e.g., from students and housewives*

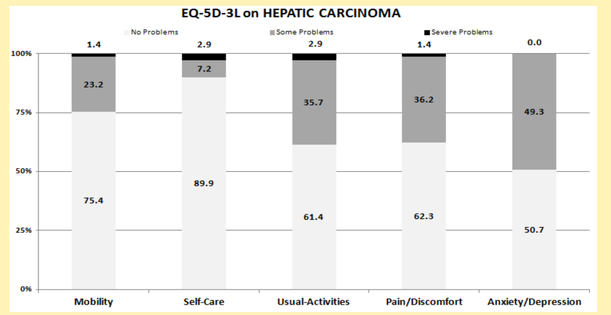
Three days per patient-month of productivity was lost by the LT patients and their family caregivers: 1.7 times more than HCC and cirrhosis patients and almost 8 times more than HBV patients.

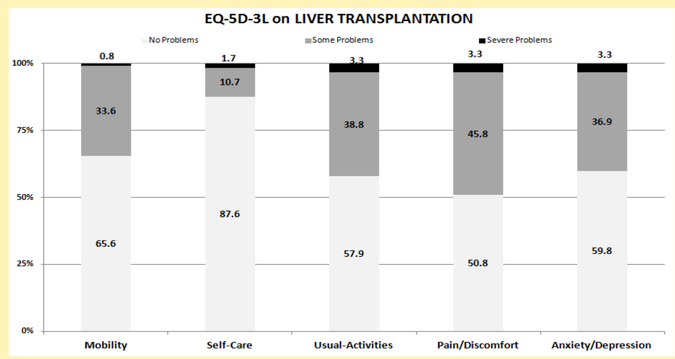
HEALTH RELATED QUALITY OF LIFE











Overall, similar levels of HRQoL were found between the disease categories, with both the VAS and the descriptive system (also when adjusting for age and gender, details not shown). The mean±SD VAS was 69.1±20.5 in LT patients.

Discussion

This study provides with an exaustive picture of the burden of CHDs in Italy. It considers the perspective of third party payer (NHS for direct medical costs), patients (HRQoL, productivity loss and some direct costs), and families (loss of productivity). High societal costs are generated from having CHDs and in particular among patients with LT: the more advanced the liver disease, the higher are the global costs. As regard HRQoL, our results show that patients with liver transplantation perceived similar levels of health respect with patients with hepatitis, cirrhosis, and carcinoma: they reported an improved HRQoL compared with their previous condition (decompensated cirrhosis). In conclusion, the use of effective treatments in the early stages of liver disease appears necessary when aiming at reducing worsening of patients' health and reducing both direct and indirect costs

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For Correspondance: Stefano Fagiuoli
roberta.ciampichini@fondazionecharta.org,

EpaC Associazione Onlus
charta FONDAZIONE
OSPEDALI RIUNITI DI BERGAMO
AZIENDA OSPEDALIERA
di rilievo nazionale e di alta specializzazione