Background Pemetrexed is an expensive oncological drug, used in combination with platinum derivatives (cisplatin/carboplatin) in the first line treatment of unresectable malignant pleural mesothelioma. In Italy, this indication is no longer subject to web-based monitoring (Onco-AIFA Register) to ensure its use appropriateness.
Purpose To assess the effectiveness in patients treated at the Istituto Oncologico Veneto (IOV) compared to the pivotal trial.
Materials and Methods This observational analysis was performed on all patients with pleural mesothelioma treated at the IOV from 01/12/2006 to 30/04/2011; the data were extracted from both paper and computerised medical records. The median Overall Survival (OS) and Time To Progression (TTP) were calculated as updated on 31/05/2012 according to the intention to treat.
Results All 46 patients (32 males and 14 females) were evaluated in terms of OS. TTP was calculated only for the 41 evaluable patients (29 males and 12 females); 5 patients lost owing to lack of information at follow-up.

The median OS/TTP values were respectively 14.2/8.9 months (vs. pivotal trial 12.1/5.7 months).

The majority of patients received the less toxic protocol pemetrexed+carboplatin, which contributed to the better OS/TTP. Better OS/TTP might be related to the use in a neoadjuvant regimen (16 patients: 10 males and 6 females); a specific stratified analysis showed TTP/OS median of 27.8/18.6 months.
Conclusions To confirm the better effectiveness of the carboplatin+pemetrexed protocol, further data on a greater number of patients, neoadjuvant treatment, treatment toxicity and patient performance status are needed.

Since the effectiveness of this high-cost oncological drug is not monitored at the national level, local monitoring is required to ensure appropriateness.

The computerised medical record is a pre-requisite for protocol standardisation and a tool of information standardisation/updating.

This work represents an easy, versatile methodological model with significant health implications.

A widely shared computerised medical record is a powerful tool for epidemiological investigations; an established network allowing benchmarking is a valid and independent decision-making tool.

No conflict of interest.

DGI-033 EVALUATION OF CRIZOTINIB TREATMENT IN PATIENTS WITH NON-SMALL CELL LUNG CANCER

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Background Crizotinib is a cytostatic oral ALK inhibitor, a newly-introduced oral cytostatic to treat non-small cell lung cancer (NSCLC) that has been accessible through an expanded use programme prior to marketing authorization.
Purpose To analyse the effectiveness and safety of crizotinib treatment in patients with NSCLC in a tertiary hospital.
Materials and Methods A retrospective descriptive study of patients taking crizotinib from August 2011 to July 2012. The following information was collected: demographic (gender and age), background (smoker/non-smoker), basal situation (Performance Status (PS), ALK-positive or negative), diagnosis and staging, dose of crizotinib, results (progress and current status) and adverse reactions. The average length of survival was determined using SPSS 20. The information sources were the electronic health records.
Results 4 patients were recruited. 3 (75%) were women. The mean age was 47. All the patients were non-smokers. Initial situation: 3 patients had a PS of 1 and the other one had 2. All of them were ALK-positive and were diagnosed with stage IV NSCLC. 2 patients received crizotinib 250 mg/12 h and the other 2 200 mg/12 h. Evolution: in 2 (50%) patients the tumour mass in the lungs did not change. In 1 (25%) the lung tumour shrank slightly. To sum up: 3 (75%) patients presented stable disease and 1 died. Adverse reactions: 3 (75%) patients had gastrointestinal reactions (diarrhoea and mucositis), 2 (50%) patients presented asthenia and 1 (25%) visual disturbances. Lastly, the average length of survival was 6 months (IC95%, 2.33–9.66).
Conclusions Due to the low number of patients recruited the effectiveness of the treatment cannot be demonstrated. Nevertheless, it is important to highlight that the disease stabilised in 3 out of 4 patients. Gastrointestinal problems were the most frequent adverse reactions. It is important to detect ophthalmological adverse reactions in time to begin patient tracking. This treatment is well tolerated in patients with a bad prognosis and few treatment options.

No conflict of interest.

DGI-034 EVALUATION OF THE EFFICACY AND SAFETY OF MIFAMURTIDE IN OSTEOGENIC SARCOMA TREATMENT IN PAEDIATRIC PATIENTS

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Background Osteosarcoma is a relatively common bone tumour; with an incidence of 0.2 to 3/100 000, it is an orphan disease. Mifamurtide has managed to increase survival without increasing side effects.
Purpose To evaluate the safety and efficacy of mifamurtide in two paediatric patients diagnosed with osteogenic sarcoma.
Materials and Methods We conducted a prospective study of two paediatric patients diagnosed with osteogenic sarcoma. Weekly, we attended the oncology sessions and we tracked them during the chemotherapy, and after that, through the electronic clinical history.

Mifamurtide is indicated in children, adolescents and young adults for the treatment of high-grade resectable non-metastatic osteosarcoma after surgical resection. It is used in combination with post-operative chemotherapy.

In the two cases, the treatment followed the SEOP-SO-2010 guidelines of the Spanish Society of Paediatric Oncology for 37 weeks.

After surgery (week 15) mifamurtide was started as adjuvant treatment: 2 mg/m^2 twice weekly for the first 12 weeks and followed by once-weekly for an additional 24 weeks, for a total of 48 infusions in 36 weeks.
Results Chemotherapy started according to protocol, the patients were aged 12 and 15 years (July and November 2010, respectively).

One patient had a flu-like reaction after the first dose of mifamurtide, so the following doses were administered with premedication (acetaminophen and dexchlorpheniramine). Other side effects: anaemia and thrombocytopenia, requiring human stimulating factors and platelet concentrates; vomiting was treated with aprepitant.

When chemotherapy finished, the patients were in complete remission, this situation continues today, 10 and 13 months later.
Conclusions The SEOP protocol plus mifamurtide achieved complete remission in both cases.

The use of mifamurtide can be considered safe and it did not increase side effects, we observed only a flu-like reaction attributed to mifamurtide which resolved with premedication.

The effectiveness of mifamurtide in osteogenic sarcoma treatment cannot be considered as assessed due to the small sample size.

No conflict of interest.

DGI-035 EVALUATION OF THE SYSTEMIC TOXICITY OF DOXORUBICIN AFTER HEPATIC IODIZED OIL CHEMOEMBOLIZATION IN HEPATOCELLULAR CARCINOMA PATIENTS

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Background Chemoembolization of iodized oil into a hepatic tumour (hioCE) is a locoregional medical technique that consists of delivering selectively into tumour-feeding arteries, an anticancer drug emulsified in iodized oil followed by an occlusive agent (embolization agent). It enables higher intra-tumour drug concentrations to be obtained compared to intravenous treatment, with blood vessel occlusion causing local necrosis. hioCE using doxorubicin at 50 mg/m^2 is effective in the palliative treatment of hepatocellular carcinoma (HCC) with significant survival benefit compared with best supportive care. To our knowledge, no study has evaluated systemic doxorubicin toxicity after hioCE.

Purpose To evaluate systemic doxorubicin toxicity in HCC patients treated by hioCE.

Materials and Methods A 3-year retrospective study was performed in the Radiology and Pharmacy departments. Toxicity was assessed using WHO criteria. Data were collected from Chimio software and patient medical records. Mann Whitney and Chi2 tests were used.

Results 94 HCC patients were treated with hioCE using doxorubicin. Median age was 64 years [28–89]. Toxicity occurred in 69 patients (73%). Main toxicities were digestive disorders (34 patients; 16 grade 3–4), cardiotoxicity (16 patients; 10 grade 3–4) and alopecia (13 patients; 8 grade 3–4). No statistical relationship was found between patient characteristics (age, sex, body mass index, medical and surgical history), HCC aetiology or characteristics, Child-Pugh score or hioCE practise and the occurrence or gravity of doxorubicin toxicity.

Conclusions More than half of the patients suffered doxorubicin toxicity after hioCE suggesting doxorubicin passed into the systemic circulation. Studies showed that the doxorubicin-iodized oil mixture was unstable. Although hioCE with doxorubicin is effective in HCC and doxorubicin toxicity occurring in our patients was less severe than that of intravenous doxorubicin administration, doxorubicin tolerance after hioCE is debatable. The use of an anticancer drug that was more stable with iodized oil could decrease the passage of the drug into the systemic circulation. The use of doxorubicin-eluting beads for chemoembolization is much more expensive but could also be an alternative.

No conflict of interest.

DGI-036 EVOLUTION OF ANTIFUNGAL CONSUMPTION IN A GENERAL HOSPITAL

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Background Antifungal treatment is an important part of global expenditure. A significant increase in the use of these drugs does entail a higher cost.

It is hoped that the use of these drugs will continue to increase each year. It is important to know the drug use distribution through the different units and the monetary cost in order to put forward pharmacist interventions.

Purpose To describe the evolution of expenditure on, and consumption of, caspofungin, voriconazole, amphotericin B and fluconazole and significant fungaemia from 2009 to 2011.

Materials and Methods Observational, retrospective study, carried out in a General Hospital.

The consumption for every single patient of caspofungin, voriconazole, liposomal amphotericin B and fluconazole, from 2009 to 2011, were obtained from the Pharmacy Department Software databases (*Langtools*). Average prices were used to calculate the financial impact. In the microbiology department, blood cultures were done for every patient treated with these drugs for fungal isolates.

Results Pharmaceutical spending on these four drugs versus general expenditure was 1.53%, 1.04% and 1.00% for the years 2009, 2010 and 2011 respectively. The evolution of consumption in units (including all presentations) and expenditure is shown in the following table (table 1).

The total consumption of the main services in the study period is shown in the following table (table 2).

The number of yeasts isolated from blood cultures was 20, 19 and 21 for the years 2009, 2010 and 2011 respectively, representing 2.48% of all positive blood cultures.

Abstract DGI-036 Table 1

	Units 2009	Spending 2009 (€)	Units 2010	Spending 2010 (€)	Units 2011	Spending 2011(€)
Caspofungin 50 mg vial	426	198,935.95	218	94,934.03	148	64.714,53
Voriconazole 200 mg vial	541	41,914.25	468	37,146.39	731	44.453,75
Liposomal Amphotericin B 50 mg vial	1456	142,091.04	1353	132,042.78	1792	174.885,93
Fluconazole 400 mg vial	2759	4,566.79	2701	4,799.73	2623	4.711,38
Total	5182	387,508.03	4740	268,922.93	5294	288,765.59
Total pharmaceutical expenditure		25,310,713		25,824,331		28,771,067

Abstract DGI-036 Table 2

	Units 2009	Spending 2009 (€)	Units 2010	Spending 2010 (€)	Units 2011	Spending 2011(€)
Caspofungin 50 mg vial	426	198,935.95	218	94,934.03	148	64,714.53
Voriconazole 200 mg vial	541	41,914.25	468	37,146.39	731	44,453,.75
Liposomal Amphotericin B 50 mg vial	1456	142,091.04	1353	132,042.78	1792	174,885.93
Fluconazole 400 mg vial	2759	4,566.79	2701	4,799.73	2623	4,711.38
Total	5182	387,508.03	4740	268,922.93	5294	288,765.59
Total pharmaceutical expenditure		25,310,713		25,824,331		28,771,067