2.31 cases per 100,000 in men (CI 95% 1.94-2.68). 24.42% of cases were diagnosed in early stages, 20.28% in advanced stages, 35.02% was in-situ, and 20.28% unknown, without statistically significant differences between the sexes. 

**Conclusions:** During the period, there were no differences in the ASIR by sex. Stage distribution was similar in women and men. However, the frequency of cases in early stages was lower compared to the reported in other geographic settings. Therefore, early diagnosis strategies must be strengthened to achieve better results.

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**PCN220**

**CLINICAL CHARACTERISTICS AND MINIMAL RESIDUAL DISEASE (MRD) TESTING PATTERNS IN NEWLY DIAGNOSED PATIENTS WITH B-CELL PRECURSOR ACUTE LYMPHOBLASTIC LEUKEMIA (ALL) FROM ITALY: A RETROSPECTIVE CHART REVIEW**

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**Objectives:** To describe clinical characteristics and MRD testing patterns in Italian patients receiving front-line treatment for B-cell precursor ALL. **Methods:** This retrospective, observational, medical chart review included adults (>18 years) newly diagnosed with B-cell precursor ALL in four Italian hospitals between January 2011 and December 2016. Patients were followed until last chart entry (at time of data abstraction [August 2018-January 2019]) or death. Details of the patients’ clinical characteristics, disease patterns and test results of patients achieving a complete response (CR) were stratified by MRD status as assessed after first induction cycle (MRD1). **Results:** Overall, 77 patients were included (mean age 47.7 years; 51% male; 12% EOCG status of 3). Mean leukocyte count was 48.6 x10^9/L and 41.5% had received stem cell transplantation (SCT). Median follow-up was 46.3 months (adjusted; interquartile range [Q1, Q3]: 38.4, 66.4). Overall, 44% (57 patients) had a CR: 35/44 (80%) CRs were per the Northern Italy Leukemia Group (NILG) protocol. At MRD1 timepoint, 14/44 (32%) patients were MRD+, 27/44 (61%) were MRD0, and 33/44 (7%) were MRD unknown. Thirty-six percent of MRD+ patients were male. Mean leukocyte count was 66.9 vs. 32.2 x10^9/L in MRD+ vs. MRD- patients. In total, 292 MRD tests were performed; 67% of tests used PCR. Patients received a mean total of 3.48 MRD tests during front-line treatment, with an average of 1.18, 1.85 and 0.84 tests performed during induction, consolidation and SCT, respectively. MRD testing rates across these phases were 95%, 93% and 84%, respectively. Overall, there were 98 positive MRD tests: 37% used 1 x10^-4 and 31% used 1 x10^-6 as positivity cut-offs; 22% used an intermediate value and the cut-off was unknown in 10% of tests. **Conclusions:** MRD testing in patients with B-cell precursor ALL was generally consistent with Italian guideline/protocol recommendations. MRD was most commonly tested using PCR.

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**PCN221**

**TREATMENT PATTERNS INCLUDING ADHERENCE/PERSISTENCE WITH CYCLIN-DEPENDENT KINASE 4&6 INHIBITORS (CDK4&6I) AMONG US COMMERCIALLY INSURED WOMEN WITH METASTATIC BREAST CANCER (MBC)**

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**Objectives:** We conducted a retrospective analysis using a commercially insured US population to describe patient characteristics and treatment patterns including adherence/persistence among women with mBC using oral CDK4&6I. **Methods:** The HealthCore Integrated Research Database (HIRD®) containing claims and enrollment data from a large commercial US payor was used to identify adult women with mBC and CDK4&6I fills (abemaciclib, palbociclib, ribociclib) between Jan-2012 and Jun-2018. Patients were required to have ≥6 months of health plan enrollment before (baseline) and after (follow-up) the earliest CDK4&6I fill. Patients with other kinase inhibitor use or claims for other primary cancer at baseline were excluded. Metastatic malignancies were identified via ICD-9-10-CM codes. Line of therapy was based on presence/absence of medication claims at baseline. Adherence was measured via proportion of days covered (PDC=80%) over 6-months follow-up, and a 60-day gap was used for discontinuation. No statistical testing was conducted. **Results:** Among 1,740 CDK4&6I users at CDK4&6I initiation, 55% (SD 16.4) age was 65 (14.2) years. Approximately 13% were enrolled in managed Medicare plans. At baseline, metastases were found most frequently in the bone (77%), followed by lymph nodes (33%), liver (21%), and lung (19%). Approximately 72% used CDK4&6I as 2nd-line treatment, usually following endocrine therapy (52%) or chemotherapy (18%). Mean (SD) number of concomitant all-cause drug classes (excluding CDK4&6I) over baseline and follow-up was 9 (4.9). Mean (SD) PDC to CDK4&6I was 0.75 (0.24) and 58% of patients were classified as adherent; 23% of patients discontinued over 6-months follow-up and among those, mean (SD) time to discontinuation was 67 (32) days. **Conclusions:** Over a six-month period approximately two-thirds of CDK4&6I initiators were adherent and a quarter discontinued. We observed high levels of polypharmacy. Future research is needed to investigate longer-term adherence/persistence and factors that influence these measures to enable development of solutions to optimize outcomes for patients.

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**PCN222**

**THE COST OF STAGE IV MELANOMA WITH BRAF V600 MUTATIONS IN GREECE**

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**Objectives:** To estimate the annual cost of treatment for Stage IV BRAF V600 mutated melanoma in Greece. **Methods:** This study is based on the information collected by an expert panel comprising of 3 oncologists of major public and private melanoma centers around Greece. A 3-round survey was undertaken, according to a modified Delphi method. The treatment phases studied were: pre-progression; disease progression and terminal care. Oncology drug costs, medical visits, laboratory tests, imaging examinations, hospitalizations, radiotherapy/surgery and concomitant medications were the resources considered in the context of the Greek National Services Organization (EOPY). **Results:** The most common drug management scenario for patients of Stage IV BRAF V600 mutated melanoma was: targeted therapies as first line treatment at 95% and 5% for immunotherapies, followed by 95% immunotherapies and 5% targeted therapies as second line and third line treatment at 65% of cases. At third line several therapeutic options include monotherapy, and combination therapies, targeted therapies, chemotherapy and immunotherapy. The weighted annual cost of treatment was 86,516,88 € for first line treatment at list price and around 41,679,50 based on the negotiated price. At second line the cost of treatment has been estimated at 21,647,70€ and 58,653,61€ for third line treatment for the most commonly used management scenarios. **Conclusions:** Metastatic BRAF mutant melanoma requires prolonged and costly treatment but new therapies managed to substantially increase life expectancy. Identifying the appropriate treatment options in order to optimize health outcomes should be an important priority in healthcare system. **Assumption:** Taking into consideration the baseline standard rebates and discounts of new active substance in Greece.

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**PCN223**

**EXPLORING THE FACTORS INFLUENCING LIVER CANCER DISEASE BURDEN AND MEDICAL QUALITY IN TAIWAN HOSPITALS: AN APPLICATION OF HIERARCHICAL LINEAR MODELING**

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**Objectives:** Liver cancer is one of the most common cancers in Taiwan, with a high incidence and mortality rate. The purpose of this study is to explore the factors that affect the disease burden and medical quality of liver cancer in various hospitals in Taiwan. **Methods:** This study adopts retrospective research design, taking Taiwan hospitals as the analysis unit. We collected data on the cancer registration files and health insurance database in Taiwan from 2011 to 2016, and calculated the incidence of liver cancer, the severity of the disease, and the one-year survival rate of hospitals throughout Taiwan. This study uses hierarchical linear modeling (HLM) to explore the associations of hospital factors (including hospital level, male patient proportion, mean patient age) and administrative area factors (population density, population ageing, physician-patient ratio) and the demand for liver cancer diagnosis and treatment (incidence, severity of disease) and the medical quality (one-year survival rate) in each hospital. **Results:** The study found that in terms of the incidence of liver cancer in various hospitals, the higher the hospital level (medical center—regional hospital—regional hospital) and physician-patient ratio, the higher the incidence. In terms of the severity of liver cancer in various hospitals, the higher the hospital level, the lower the severity of the disease. As for the medical quality of liver cancer in various hospitals, the higher the mean patient age, the lower the one-year survival rate. **Conclusions:** In Taiwan, the incidence of hospital liver cancer is mainly affected by the hospital level and the physician-patient ratio. The severity of liver cancer in hospitals is mainly affected by the hospital level. The survival rate of liver cancer in hospitals is mainly affected by the mean patient age.