PCN187
DESIGNING INNOVATION FOR EFFICIENT POST-APPROVAL DRUG UTILIZATION AND EFFECTIVENESS STUDIES
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Objectives: Data from electronic medical records are frequently used for retrospective real-world studies of treatment patterns and outcomes. However, site-based retrospective chart review methodology has inherent limitations including extended timelines, greater funding requirements and high site burden. Thus, studies that utilize real-world direct-to-physician networks for data collection are warranted. The objective was to describe a drug utilization and effectiveness IRB-approved pilot study design and performance metrics, based on data from physician-reported medical charts. Methods: A US-based retrospective chart review pilot study was executed, using an existing on-line physician network. The protocol was centrally IRB-approved and eligible patients were identified from 2016-2019 who had ≥ 6 months of follow-up. A large panel of physicians, representative of the US market, had previously been screened on factors including years of practice, credentials, scientific publications and location. Stratified sampling, based on diseases treated and number of patients treated with the disease, was used to select physicians. Variables for the study included physician and patient characteristics, treatment patterns and response to treatment. Data were entered by treating physicians into an online platform, including automated, random and tailored edit checks and the subsequent issuing of any queries.
Results: Forty-three of the 91 contacted physicians participated (47.3%), of which 24 (26.4%) provided data for patients included in the study. The total number of patients included in the study was 1,935 (IQR: 1,880 - 2,000) of which 22.7% were new patients. Data was collected (screened and abstracted) efficiently, within 2 months. Queries to the treating physicians on average were answered in 3-5 days. The final dataset had < 1% of missing data. Conclusions: This direct-to-physician, online retrospective chart review study was time and cost-efficient for collecting high quality real-world drug utilization and effectiveness data. This study demonstrates that direct-to-physician chart collection can be an effective and flexible alternative to traditional site-based chart review studies.

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IDENTIFICATION OF PATIENTS WITH CHRONIC MYELOID LEUKAEMIA (CML), MULTIPLE MYELOMA (MM) AND MYELODYSPLASTIC SYNDROMES (MDS) USING REAL-WORLD DATA: FINDINGS FROM THE PRHTRA - EMATOLOGIA PROJECT
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Objectives: The "PRHTRA - EMATOLOGIA" project was developed in collaboration with Veneto Region (Italy) to analyse patients with hematological malignancies using administrative databases. Within the project, the present study aims to identify patients with CML, MM and MDS, to analyse their prevalence and to evaluate healthcare resource consumption and related costs by using real-world data.
Methods: This observational retrospective cohort study was carried out by matching administrative and laboratory data with medical records from Veneto Region. Patients were identified between 01/01/2014-28/02/2018 by ICD-9-CM codes (205.10-205.11 for CML; 203.0 for MM; 238.72-238.73-238.75 for MDS) and/or by ATC codes of drugs used for CML (imatinib; nilotinib; dasatinib; ponatinib; bosutinib), MM (lenalidomide; thalidomide; bortezomib; pomalidomide; carfilzomib; elotuzumab; daratumumab; melphalan; plerixafor), MDS (azacitidine; lenalidomide). Costs analysis included hospitalizations, drug dispensations, and specialist visits/diagnostic tests and was conducted with the National Italian price list. Results: Overall, 118 CML patient, 240 MM patients and 130 MDS patients were identified. Mean age ± SD was 64.6 ± 14.7 in the CML, 69.6 ± 11.4 in the MM and 73.2 ± 9.7 in the MDS cohorts. Proportions of male were 57.6%, 50.4% and 58.5% among CML, MM and MDS patients, respectively. Prevalence was calculated to be 124.7 (CML), 228.8 (MM), 120.3 (MDS) per 1,000,000 health-assisted individuals. In each disease, peak prevalence was found between ages 70-79 years. The total annual costs for the last year of study period were €20,042, €30,730 and €11,092 for CML, MM and MDS patients, respectively. Conclusions: Main overall, 118 CML drugs in CML (€16,517) and MM (€19,654) cohorts, and by hospitalizations (€3,691) in MDS cohort. Conclusions: Administrative databases represent readily available sources of real-world data valuable for healthcare research purposes. Our findings show that data from administrative databases may be reliable tools to provide some information on the epidemiology and the economic burden of hematologic malignancies as CML, MM and MDS.

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AN ESTIMATE OF NON-SMALL-CELL LUNG CANCER (NSCLC) PATIENTS WITH ALK TRANSLLOCATION (ALK+) IN ITALY ELIGIBLE FOR TREATMENT WITH TYROSINE KINASE INHIBITORS (TKI)
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Objectives: ALK+ NSCLC is an aggressive malignant neoplasm. The prognosis of these patients is rapidly changing due to the availability of the second generation TKI drugs for the second-line treatment post-crizotinib. This study tries to estimate the current number of patients and by ALK+ NSCLC in Italy and provide a future estimate for patients eligible for the treatment with TKI.
Methods: A literature review was carried out to identify the most accurate epidemiological parameters aimed to estimate the patients with ALK+ NSCLC in Italy based on the Incidence approach. An epidemiological funnel was designed starting from the Italian population (ISTAT 2019) and the incidence rates of the Italian Cancer Registry Association (AIRTUM 2019) was applied; from the total number of patients with lung cancer, the number of patients with advanced NSCLC was estimated and finally, the number of tested and positive results for ALK translocation for was identified. Results: In Italy, 42,501 patients are affected by lung cancer (incidents); 23,562 suffering from advanced (stage III-B/IV) NSCLC. Given the increased awareness of the disease, it is estimated that the number of patients tested for ALK reaches 85% (weighted average percentage for non-squamous and squamous histology). The patients under 130 were eligible for a post-crizotinib second-line treatment each year. Conclusions: ALK+ NSCLC is a particularly aggressive tumor; the affected patient undergoes frequent relapses. It is important to estimate as accurately as possible the number of incident patients affected by this disease and relative line of therapy, which may be candidates for various treatments.

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KADKR: A FRENCH RETROSPECTIVE STUDY DESCRIBING THE THERAPEUTIC MANAGEMENT OF PATIENTS WHO RECEIVED TRASTUZUMAB BASED NEoadjuvant TREATMENT FOR HER2-POSITIVE EARLY BREAST CANCER (eBC)
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Objectives: The KATHERINE trial supports trastuzumab emtansine as adjuvant treatment in HER2+ eBC patients with residual disease. To complement evidence from this trial, the French observational KADKR study aimed to describe in the real world setting the characteristics and therapeutic management of patients with HER2+ eBC who initiated trastuzumab-based neoadjuvant therapy. Methods: We established a 4-years retrospective follow-up cohort of patients who had initiated a trastuzumab-based neoadjuvant treatment in 2014 followed by surgery and trastuzumab-based adjuvant therapy. This study included 57 active sites. The cohort consisted of 301 patients. Median age was 51 years (IQR: 42.0 – 60.0). Ninety-two out of 267 patients (34.5%) were diagnosed with stage III. Very few patients (3.3%) presented invasive lobular carcinoma. Scarff-Bloom-Richardson (SBR) grade III was observed in 50.3% of the patients. More than half of patients (59.8%) were hormone receptor positive (HR+). Around two thirds of patients (61.5%) received anthracyclines-based chemotherapy followed by concomitant taxane and trastuzumab. Breast conserving surgery was performed for 47.3% patients. Complete pathological response (pCR) was observed in 42.9% patients (37.3% for HR+ and 50.4% for RH- patients). After surgery, the mean adjuvant trastuzumab dose administered was 6.0 mg/kg. The median duration of trastuzumab-based therapy (neoadjuvant and adjuvant) was 51.1 weeks (IQR: 48.6 – 54.0). Most HR+ patients (78.0%) also received endocrine therapy. Conclusions: The patients included in this cohort were tested. The estimate of patients with ALK+ translocation is 3.8%, for a total amount of approximately 649 eligible patients for first-line treatment. Patients receiving crizotinib are 162 (25%) and the proportion of patients continuing therapy post-crizotinib is 80%, consistent with approximately 130 new patients eligible for a post-crizotinib second-line treatment each year. Conclusions: ALK+ NSCLC is a particularly aggressive tumor; the affected patient undergoes frequent relapses. It is important to estimate as accurately as possible the number of incident patients affected by this disease and relative line of therapy, which may be candidates for various treatments.

PCN191
MODELING THE DURATION OF PROTECTIVE EFFECTS AND RESOURCE USE OF COLONOSCOPY SCREENING BY A DISCRETE EVENT SIMULATION MODEL CALIBRATED WITH GERMAN SCREENING REGISTRY DATA
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Objectives: Colorectal cancer (CRC) screening models are valuable tools for projecting long-term effects and resource use for policy decision-making. A new Discrete Event simulation model for the natural history of Colorectal cancer from the