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POSA388

ATTAINMENT OF LOW-DENSITY LIPOPROTEIN CHOLESTEROL TARGETS IN PATIENTS TREATED WITH COMBINATION THERAPY IN AUSTRALIA: A RETROSPECTIVE COHORT STUDY OF A PRIMARY CARE DATABASE

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Objectives: The attainment of low-density lipoprotein cholesterol (LDL-C) therapeutic goals in real-world settings is not well characterised, especially among patients receiving combination lipid-lowering therapy (LLT). We evaluated the LDL-C goal achievement in patients treated with combination LLT in the Australian primary care setting. Methods: A retrospective analysis of LDL-C data in patients aged ≥18 years treated with combination LLT (statins plus non-statins, either as a fixed-dose combination or as separate formulations) from general practitioner electronic medical records across Australia from 2013 to 2019. Based on Australian guidelines, the target for LDL-C was <2 mmol/L (77 mg/dL). Results: Our study included 9,173 individuals treated with combination LLT. Mean age was 65.8 years (standard deviation (SD) 11.5), 60.1% were males, and 56.7% had at least one cardiovascular risk factor. The median recorded treatment duration was 948 days (interquartile range [IQR] = 397-1715 days) and the median time from the first statin prescription to the first non-statin prescription was 125 days (IQR = 0-820). The median LDL-C was 2.1 mmol/L (IQR = 1.6-2.8), and overall 45.4% of the study population met LDL-C goals, with individuals on fixed-dose combination of statins plus ezetimibe having the highest rates of achievement (49.8%). Factors associated with LDL-C goal achievement were male sex (odds ratio [OR] = 1.4, 95% confidence interval [CI] 1.3-1.6, p < 0.001), lower BMI (OR = 4.2, 95% CI 2.8-6.4), and a history of T2DM (OR = 1.7, 95% CI 1.5-1.9, p < 0.001) or coronary heart disease (OR = 1.4, 95% CI 1.2 - 1.6, p < 0.001). Conclusions: More than half the population treated with combination LLT did not achieve LDL-C goals according to Australian clinical guidelines.

POSA389

WHO CAN WE SEE IN RWD? ASSESSING CAPTURE OF DEMOGRAPHIC DATA ACROSS MULTIPLE COUNTRIES

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Objectives: Real-world data (RWD) and real-world evidence (RWE) play an increasing role in healthcare decision-making, including regulatory decisions, clinical care, guideline development, and reimbursement/payer decisions. As such, the capture, completeness, and quality of these data underlying these analyses are imperative. Demographic data are critical to the identification of disparities in disease risk and care quality. However, the extent to which these characteristics are collected and recorded in RWD sources is not well known. The objective of our research was to assess and compare the degree of missingness of race, ethnicity, language, and sex data across a review of commercially available datasets across multiple countries. Methods: Commercial EHR datasets from the United States, France, the United Kingdom, Spain, Belgium, and Romania were used for this analysis. The data dictionaries for each were reviewed to determine whether they included race, ethnicity, language, and sex. The Analytical Engine Platform (AEP) was used to assess the percentage of patients for whom demographic data was missing. Results: Of the seven EHR datasets, only the US included information about patient race (29.4% missing) and none included information on language. Information on sex was captured in all datasets, with varying degrees of missingness ranging from 0.67% (US) to 41.34% (Spain). This was a national population-based retrospective database study performed on Swedish data focusing on metastatic breast cancer (MBC), metastatic non-small cell lung cancer (MNSCLC), metastatic colorectal cancer (MCRC), and metastatic ovarian cancer (MOC). Patients were identified using diagnosis codes for the respective tumor and stage and/or, in cases of a recurrent disease, the existence of a secondary neoplasm. Data were extracted from the Swedish cancer registry and the Swedish patient register. Personal identification number (PIN) allowed linking of patients between registers and identification of recurrent disease. The study period was 2005-01-01 to 2018-12-31. OS was estimated using the Kaplan-Meier method. Results: MRC4 had the highest number of diagnosed patients (n=25,412), followed by MNSCLC (n=20,418), MBC (n=17,061), and MOC (n=1972). The longest median survival was observed for patients with MOC and MBC (23.4 and 20.0 months, respectively). The median OS for MBC and MNSCLC was 12.4 and 5.2 months, respectively. The 10-year survival was 10% for patients with MOC, MBC, and MCRC, and 1.7% for MNSCLC patients. Conclusions: There is a paucity of studies estimating long-term OS for metastatic cancers. With the possibility of linking registries, patients with both first diagnoses in stage IV metastatic disease and with metastatic disease recurrence, may be identified. The observed OS in this study demonstrates the existence of long-term survivors with MOC, MBC, and MCRC. Further research is needed to explore patient and disease characteristics of long-term survivors.

POSA390

INTERROGA: STUDY OF A POPULATION ELIGIBLE TO REINTERVENTION OF A BARIATRIC SURGERY IN FRANCE: IMPACT OF THE DIFFERENT REVISIONAL BARIATRIC SURGERIES ON DIABETES MELLITUS AND ITS TREATMENTS

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Objectives: Benefits of revisional bariatric surgeries is poorly studied in patients with diabetes mellitus patients. The objective of this study is to assess their impact on Antidiabetes Treatments. Methods: An extraction from the French nationwide healthcare database targeted all patients who underwent bariatric surgery for the first time during 2012-2014 and were followed until end of 2017. Revisional bariatric surgery included Sleeve Gastrectomy (SG) and Gastric By-Pass (GBP), Adjustable Gastric Banding (AGB) remained anecdotal. We analysed the evolution of the number of different diabetes, and the proportion of patients with both first diagnoses in stage IV metastatic disease and with metastatic disease recurrence, may be identified. The observed OS in this study demonstrates the existence of long-term survivors with MOC, MBC, and MCRC. Further research is needed to explore patient and disease characteristics of long-term survivors.

POSA391

REAL-WORLD LONG-TERM OVERALL SURVIVAL IN METASTATIC CANCER IN SWEDEN

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Objectives: To estimate the overall survival (OS) over time and the proportion of long-term survivors among patients diagnosed with four common metastatic cancers in Sweden. Methods: This was a national population-based retrospective database study performed on Swedish data focusing on metastatic breast cancer (MBC), metastatic non-small cell lung cancer (MNSCLC), metastatic colorectal cancer (MCRC), and metastatic ovarian cancer (MOC). Patients were identified using diagnosis codes for the respective tumor and stage and/or, in cases of a recurrent disease, the existence of a secondary neoplasm. Data were extracted from the Swedish cancer registry and the Swedish patient register. Personal identification number (PIN) allowed linking of patients between registers and identification of recurrent disease. The study period was 2005-01-01 to 2018-12-31. OS was estimated using the Kaplan-Meier method. Results: MRC4 had the highest number of diagnosed patients (n=25,412), followed by MNSCLC (n=20,418), MBC (n=17,061), and MOC (n=1972). The longest median survival was observed for patients with MOC and MBC (23.4 and 20.0 months, respectively). The median OS for MBC and MNSCLC was 12.4 and 5.2 months, respectively. The 10-year survival was 10% for patients with MOC, MBC, and MCRC, and 1.7% for MNSCLC patients. Conclusions: There is a paucity of studies estimating long-term OS for metastatic cancers. With the possibility of linking registries, patients with both first diagnoses in stage IV metastatic disease and with metastatic disease recurrence, may be identified. The observed OS in this study demonstrates the existence of long-term survivors with MOC, MBC, and MCRC. Further research is needed to explore patient and disease characteristics of long-term survivors.

POSA392

ONLINE RISK FACTOR ASSESSMENT USING MACHINE LEARNING FOR PREDICTION OF SURVIVAL AFTER HOSPITAL DISCHARGE FROM COVID-19 INFECTION

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Objectives: The purpose of this study was to develop a risk model using machine learning for predicting the risk of death after hospital discharge for patients who had been hospitalized with COVID-19. Methods: This is a retrospective cohort study of patients who were hospitalized with COVID-19 in Brazil from 2020 to 2021. The study included 1,000 patients who were discharged from the hospital and followed until the end of 2021. The risk model was developed using machine learning algorithms, including decision trees, random forests, and gradient boosting. Results: The risk model achieved an area under the receiver operating characteristic curve (AUC) of 0.85, indicating good predictive performance. Conclusions: The risk model developed in this study can be used to predict the risk of death after hospital discharge for patients who had been hospitalized with COVID-19. The model can help healthcare providers to identify high-risk patients and optimize treatment strategies.
Objectives: Predicting survival and risk of death after hospital discharge due to COVID-19 can help in screening patients who require special care after hospitalization.

Methods: We used the survival curve with associated factors determined after COVID-19 admissions.

Results: From the 810 patients, 125 had died after hospital discharge, mean time of death 9.28 months. Model performance evaluated through the Concordance Index (C-Index) metric. CRPR had better performance with a C-Index of 0.74, while RF and LR had a C-Index of 0.73. Risk of death during follow-up period was significantly higher when presence of previous comorbidities (p<0.020), age greater than 60 years (p<0.001), ICU stay (p<0.001), and higher average length hospital stay (p=0.001).

Conclusions: Several tools have been developed for to calculate absolute risk or chances of needing to go into hospital or dying from COVID-19. The online risk calculator that we developed is unique and suitable to predict metastatic breast cancer (mBC) by line of therapy (LoT).

POSA396 WORK PRODUCTIVITY IN PATIENTS WITH METASTATIC BREAST CANCER: A RETROSPECTIVE ANALYSIS OF CLAIMS DATA IN THE U.S.

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Objectives: To characterize workplace productivity measures in patients with metastatic breast cancer (mBC) by line of therapy (LoT).

Methods: A retrospective cohort study was conducted using IBM’s MarketScan Commercial Claims and Encounters (CCAE) and Health and Productivity Management (HPM) databases. The cohort included patients diagnosed with mBC who initiated first-line treatment (1L) between 2/3/2015 and 6/30/2018 while actively employed. Patients were followed from the date of the first claim for mBC therapy until disenrollment, a gap in HPM eligibility, transition to palliative care, or end of data. Productivity was assessed using the HPM database to examine total sick days taken, days absent from work, short- and long-term disability (STD, LTD), and employment status. Change in LoT was defined using claims from the CCAE database that signified therapy discontinuation, therapy change, or severe censoring.

Results: Among the 548 eligible patients, 49.4% took a leave of absence for a median of 67.5, 620.2, and 106.3 days while receiving 1L, second line (2L), and third line or greater (3L+) therapy, respectively. In patients eligible for 2L or greater, 49.3% and 12.0% used the benefits for a median of 98.0 and 131.5 days each. Use of disability leave increased as patients progressed on LoT, with 39.3% and 7.3% of eligible patients using STD and LTD in 1L, 18.5% and 8.0% in 2L, and 42.7% and 16.5% in 3L+. Similarly, the proportion of patients who transitioned from active employment to unemployed increased as treatment progressed: 6.7%, 10.3%, and 12.7% transitioned to unemployed status while receiving 1L, 2L, and 3L+ therapy.

Conclusions: Metastatic breast cancer progression, defined using LoT, is associated with increased use of leave, STD, and LTD, and an increased probability of unemployment. SPONSORSHIP: Pfizer Inc.