Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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comprehensive epidemiological understanding of SARS-COV-2 (COVID-19) symptoms, clustering and resolution; (2) provide data on the impact of both infection and the pandemic on patients’ lives; and (3) offer full and trustworthy benefit in studies designed to treat or vaccinate against COVID-19. Methods: A review of the literature (March 2020) used COVID-19 and signs, symptoms and impacts search terms. A preliminary conceptual model was developed and novel PRO items were drafted. A review of social media (June 2020) informed an updated conceptual model and PRO items. Joint concept elicitation–cognitive interviews were conducted with people who had experienced COVID-19 (June–July 2020). Results: The literature (25 articles), social media (>200 million mentions) and interviews (n=10) highlighted a heterogeneous list of symptoms and impacts of COVID-19 infection, and a broad list of impacts of the pandemic in general. Novel PROs are intended to be comprehensive, so the incidence and severity of 42 signs and symptoms are measured. Fifteen additional items ask about the impact of infection (physical, emotional and social) and 18 about the impact of the pandemic. The PRO is adaptive (modular) to allow administration to people with and without COVID-19 infection. Weekly- and daily-recall versions were tested in cognitive interviews resulting in adjustments to ensure understandability. Conclusions: Novel content-valid PROs have been developed to measure the signs, symptoms and impacts of COVID-19 pandemic and infection. These are currently being employed in a large longitudinal study to evaluate their psychometric measurement properties.

Infectious Diseases · Real World Data & Information Systems

PIN169 USING EPIEMIOLOGICAL REAL-WORLD DATA IN ASSESSING THE SOCIO-ECONOMIC BURDEN OF HIV AND THE CLINICAL AND ECONOMIC ASPECTS OF ANTIRETROVIRAL THERAPY

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 objectives: The aim of the work was to develop a pharmacoeconomic model to assess the economic aspects of antiretroviral therapy (ART) based on the real-world epidemiological data. Methods: The methodology consisted of statistical processing of the epidemiological data of ART patients and the subsequent mathematical modeling. More than 1,113 outpatient histories of HIV patients receiving ART were analyzed at the Center for HIV/AIDS Prevention and Control for 2011–2016. The following indicators were evaluated: number, duration, disease stage, distribution of patients in the observation period, the number of ART regimens changes and their causes, the treatment regimen cost. Modeling involved the automation of ART regime cost calculations, assessing the consequences of frequent changes in treatment and the additional costs associated with a particular drug use, and the economic role of genotyping. results: According to the database analysis, 57% of men and 43% of women received ART during the estimated period; age distribution was the following: <24 years – 55, 24 - 49 years - 84%, >49 years - 11%. The following transmission methods were recorded: heterosexual (53%), injection (38%), homosexual (4%), and vertical (5%). It showed that the average number of changes in treatment regimen per year was 1.8, with a maximum value of up to 13. The main reasons for changing the treatment regimen were therapy inefficiency (58%), drug availability (32%), and adverse reactions (9%). In the course of mathematical modeling, the economic consequences of changing treatment regimens, and the role of genotyping in ART were demonstrated. The HIV socioeconomic burden was determined using an upward approach. conclusions: Clinical and economic modeling based on epidemiological data is an important tool in predicting the cost of providing antiretroviral drugs and assessing the role of additional research in monitoring HIV patients, which helps to identify the most resource-saving approaches for clinical practice.

PIN170 THE NOVEL CORONAVIRUS DISEASE (COVID-19): IMPACTS ON TESTS AND HOSPITALIZATIONS PERFORMANCE IN A HEALTH PLAN IN BRAZIL

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 objectives: One of the major concerns is the burden COVID-19 will impose on the health care system worldwide. Brazil is the second country in the most confirmed cases (1.1 million cases) and 60 thousand deaths. The study evaluates the impact on use of the health plan by COVID-19. Methods: Design: retrospective non-interventional study using population-based health administrative databases. Setting: payer provider healthcare organization. Participants: 41,640 individuals. Outcomes: number of authorizations to tests and hospitalizations during two periods of 90 days, before (P1) and after (P2) the first registered case of COVID-19. Hospitalizations were classified into surgical, clinical potentially avoidable and other types. Statistics: data were analyzed descriptively considering means and standard deviations for continuous variables and frequencies for categorical variables. Microsoft Excel® v2010 and Qlik Sense® v13.21 were used to data and statistics. results: During the study period (180 days), 21,583 patients underwent to tests, 15,016 in P1 and 6,565 in P2, a reduction of 56.3% and 3,316 hospitalizations occurred (P1=2,066; P2=1,250; reduction of 39.5%). Segmented analysis of hospitalizations demonstrates 69.3% reduction in surgical cases (1,043, P1=801 and P2=242) and 20.1% in clinical admissions (2,085, P1=1,616 and P2=928). We also observed a 37.2% reduction in cases of potentially preventable hospitalizations. All other types decreased 23.1% (184, P1=104 and P2=80). Conclusions: Local health guidelines recommended to postpone procedures due risk of COVID-19 infection during hospital stay and block of hospital beds to attend to the pandemic. After the second period, using curve depicting a gradual return to standard performance of tests (~80.6%), not yet observed in hospitalizations (~0.2%). The behavior of beneficiaries, professionals and health services that resulted in the postponement of procedures contributed to avoid the collapse of the Brazilian health system during the pandemic period.

PIN171 A REAL-WORLD DATA ANALYSIS OF MORTALITY AND HEART ARRYTHMIA RISK IN HOSPITALIZED COVID-19 PATIENTS TREATED WITH HYDROXYCHLOROQUINE

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 objectives: A number of publications have disputed the benefits and risks of hydroxychloroquine (HCQ) treatment in COVID-19 patients. Recently, a now-retracted, high-impact factor publication based on data that has been questioned in the media, claimed that HCQ treatment increased frequency of ventricular arrhythmia and mortality risk in hospitalized COVID-19 patients. Our study aims to investigate the risks of HCQ treatment using real-world patient data. Methods: Real-world data composed of electronic medical records from approximately 54 million patients in Americas and APAC region (TriNetX Datworks Network) were analyzed using TriNetX Analytics. COVID-19 patients were defined with the ICD-10 code U07.1 or a record of a positive SARS-Cov-2 RNA test result, recorded between December 20, 2019 and May 1, 2020. Cohorts were further identified by a hospitalization encounter within 1 week from the first diagnosis/positive test (index event), a record of HCQ treatment with or without macrolide (treatment groups), or no record of antimalarial treatment (control group). Patients who started HCQ therapy while on mechanical ventilation were excluded. Cohorts were balanced using propensity score matching and adjusted for 34 confounders. Recorded death was used to define mortality outcome, and ICD-10 code I49 was used as an outcome for ventricular arrhythmia. The observation period was set between 1 and 60-days post index event. Results: In the balanced cohorts of 485 patients each, use of HCQ with a macrolide, compared to the untreated group was neither associated with higher risk of mortality: risk ratio, RR (95% CI) 1.061 (0.776,1.449), nor with cardiac arrhythmia RR 1 (0.42,2.381). Similar results were observed in the group treated with HCQ alone compared to control: mortality RR 1.015 (0.74,1.392) and cardiac arrhythmia RR 1 (0.45,2.304). Conclusions: This real-world analysis does not support claims that use of hydroxychloroquine in hospitalized COVID-19 patients is associated with a higher risk of mortality or cardiac arrhythmia.

PIN172 EMERGING NEW TREATMENT PATTERNS GIVEN NEW THERAPIES IN ADVANCED RCC TREATMENT IN THE US

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 objectives: Some studies exist on evolving real world treatment patterns given new immuno-oncology (IO) combination regimens added to the National Comprehensive Cancer Network (NCCN) guidelines for advanced renal cell carcinoma (arCC). This study describes real-world (RW) treatment patterns in a large US claims database-our understanding of standard of care for arCC treatment. Methods: Using Optum Clinformatics Claims data, patients ≥18 with ≥ 2 RCC diagnoses ≥30 days apart, who subsequently start first-line (1L) arCC treatment (study index date) during April 2018 to March 2019 were all followed-for 9 months. Patients had ≥2 secondary malignancy codes in the 12 months prior/post-index date and 9-months of continuous enrollment pre- and post-index. Results: Study identified 415 1L arCC patients. The most common 1L regimen was monotherapy tyrosine kinase inhibitors (mono TKIs) representing 43.13% (N=179). Combination IO (combo IO), monotherapy IO (mono IO), IO + TKI, and Other, represented 28.43% (N=118), 25.30% (N=104), 0.96% (N=4) and 3.13% (N=13) respectively. Combo IO patients were younger, mean age 66.58, compared to mono TKI and mono IO patients, mean age 70.15 (p=0.003) and 72.72 (p<0.001), respectively. Mean days of continuous therapy for mono TKI patients was 152.17, compared to combo IO 171.64 (p=0.003) and mono IO 173.22 (p=0.028). Mono TKI users went on to second-line treatment more often, 41% vs combo IO 12.38% (p=0.0005) and vs mono IO 33.05% (p=0.158). Conclusions: RW claims data provide insight into how physicians and patients adapt to new treatment guidelines. The prevalence of 1L IO monotherapy was an interesting finding given it is not indicated for first line treatment. Ongoing monitoring of real-world treatment patterns of new and evolving regimens, as well as oral versus injectable preferences, will be especially important in the face of the COVID-19 pandemic as we track the impact of health services interruptions.

PIN173 STUDYING FAKE NEWS ON TWITTER DURING THE COVID-19 PANDEMIC IN FRANCE

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 objectives: The behavior of beneficiaries, professionals and health services that resulted in the postponement of procedures contributed to avoid the collapse of the Brazilian health system during the pandemic period.

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**PIN175**

**HOSPITAL DELIVERED VACCINATION IN ENGLAND 2019/ 2020**

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**Objective:** Vaccines can be administered in primary or secondary care and it is important that vaccinations are captured on individual health records to ensure that immunisation status is current, maintained and allow for data reporting. Using Hospital Episode Statistics (HES) data we sought to analyse vaccination delivery and reporting in hospitals.

**Methods:** Using HES data from April 2019 to March 2020, procedure codes X44 (Administration of vaccine) and E952 (Administration of Bacillus Calmette-Guérin vaccine) were extracted from inpatient and outpatient activity. For outpatients, appointment type and main specialty were obtained. For inpatient activities, length of stay (LoS), and primary ICD10 diagnosis were extracted. The number of patients, median age and gender were extracted for both. Results: 28,349 patients received vaccination at an appointment. Median age was 22 years, 68.7% were female, 49% were ‘first appointments’ and 48% were ‘follow up’ appointments. The main outpatient specialties were midwifery (29%), paediatrics (20%) and obstetrics (14%). Inpatients, 1,273 patients received vaccination during an admission. Median age was 3 years, 47.1% were female. Median LoS was 2 days. The principle primary diagnosis ICD10 codes for the admissions were: Z23-27 (Need for immunization) for 932 patients; Z380 (Singleton, born in hospital) for 170 patients.

**Conclusions:** Vaccination has greatly reduced the burden of infectious diseases. The UK’s immunisation programmes are world-leading and have led to a dramatic fall in serious infectious diseases. Vaccines can be administered in primary or secondary care and it is important that vaccinations are captured on individual health records to ensure that immunisation status is current, maintained and allow for data reporting.