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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Social networks are recognized as a source of real-world data. The COVID-19 pandemic crisis has been an important topic covered on Twitter. Some users have been recognized to be COVID-19 and lockdown were revealed by Twitter API between March and June 2020. Tweets containing fake news, listed by fact-checking media were identified by searching words sequences (N-gram) based on lexical fields of these news and misinformation. Posts associated to each fake news are clustered to be subsequently categorized and classify users spreading them and modelling their propagation network. The latter is based on retweeting fake news. Results: Among 2.5 million extracted tweets, 20 fake news were identified by words sequences (intox/Buzyn/chloroquine, etc) and assessed manually. The biggest group (35%) refers to the potential involvement of the Buzyn/Lévy couple in the non-prescription of chloroquine. Focusing on this one, the propagation network shows that Agnès Buzyn and Didier Raoult hold the 2 most retweeted accounts. Several clusters of heterogeneous users, in terms of influence (number of followers, etc), have been identified. The majority of these users gravitated towards medias or reporters’ accounts. Over half of the tweets debunked this misinformation by sharing Les Décodeurs Du Monde’s report. Conclusions: The propagation network highlighted the different kinds of users spreading fake news and their existence on Twitter. An algorithm that can automatically detect health crisis misinformations, could help health authorities fight against them.

HOSPITAL DELIVERED VACCINATION IN ENGLAND 2019/ 20

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Objectives: Vaccination 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 resource implications are limited. This study sought to characterize length of stay (LOS) and primary CID10 diagnosis were extracted. The number of patients, median age and gender were extracted for both. Results: Outpatients: 28,349 patients received vaccination at an appointment. Median age was 22 years, 67.8% were female, 41% were ‘first appointments’ and 48% were ‘follow up’ appointments. The main outpatient specialities 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 primary principle diagnosis CID10 codes for the admissions were: Z23-27 (Need for immunization) for 932 patients; Z280 (Singleton, born in hospital) for 170 patients Conclusions: The number of vaccines given in secondary care help to reduce infectious diseases. These data appear to capture the vaccination of patients tend to be older with more comorbidities. Additionally, less than one in ten HF patients received the AHA recommended influenza vaccine. Although some patients may have received vaccination outside of their health coverage, the vaccination rate is lower than expected. More research is needed to understand the reasons behind the implications of low vaccination rates in this elderly and high-risk patient population.

Objectives: We characterized the hours of vaccination to reduce the likelihood of infection that may cause serious complications. The aim of this study was to describe and compare the baseline characteristics of HF patients by their vaccination status. Methods: This retrospective, observational study tracked adult HF patients’ annual vaccination status between 07/01/2015 – 12/31/2018, using linked medical and pharmacy claims data. Patients were required to have ≥ 1 HF diagnosis in an inpatient/outpatient setting anytime between 07/01/2015 and 12/31/2016 (study period). Patients with evidence of vaccination between 07/01/2015 and 12/31/2017 (the study period) were assigned to the vaccinated cohort and to the non-vaccinated cohort. Baseline demographic and clinical characteristics were assessed and compared between the two cohorts of HF patients. Chi-Squared tests were used to assess for statistical significance. The study was replicated for three consecutive seasons (2016-2018). Results: There were 10,180, 12,813, and 16,403 HF patients in the 2016, 2017, and 2018 cohorts. Out of these patients, 845 (8.3%), 1,095 (8.5%), and 1,632 (9.0%) had evidence of influenza vaccination, respectively. In the 2016, relative to non-vaccinated cohort, there were more females (vaccinated vs non-vaccinated: 52.3% vs 45.6%; p-value=0.002) and older age (74.3±11.5 vs 710 ±12.5 years; p-value=0.001) and sicker patients (CCI: 3.3±2.0 vs 2.3±1.7; p-value=0.0001). Similar trends were observed in the 2017 and 2018 cohorts. Conclusions: This real-world study found that the vaccinated patients tend to be older with more comorbidities. Additionally, less than one in ten HF patients received the AHA recommended influenza vaccine. Although some patients may have received vaccination outside of their health coverage, the vaccination rate is lower than expected. More research is needed to understand the reasons behind the implications of low vaccination rates in this elderly and high-risk patient population.

IMPACT OF SELECTED COMORBIDITIES ON HEALTHCARE RESOURCE UTILIZATION AMONG HOSPITALIZED PATIENTS WITH COVID-19 IN A US POPULATION

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Objectives: Various comorbidities have been found to be associated with the severity of novel coronavirus disease 2019 (COVID-19), but data on their healthcare resource implications are limited. This study sought to characterize length of stay (LOS) and charges associated with COVID-19 related inpatient (IP) visits by selected baseline comorbidities using a large, multi-hospital US database. Methods: The Premier Healthcare Database COVID-19 from 2019/01/01 through 2020/05/24 was used to identify patients with an IP visit including a COVID-19 diagnosis and with ≥1 encounter for any reason during the 12 months (baseline) prior to the IP visit start (index). The outcomes were LOS and total charges (medical and medication) associated with the index IP visit. The baseline comorbidities included coronary artery disease, chronic kidney disease (CKD), chronic lung disease (CLD), diabetes, liver disease and immune-suppressing diseases, along with the total number of these conditions. Continuous variables were summarized using the mean, median and standard deviation (SD) and categorical variables using percentages. Results: The study included 10,948 patients (mean age=63.6 years; females=50.7%) with 40.9% having none of the baseline comorbidities, 28.5% with one, 16.7% with two, 9.4% with three and 4.4% with four or more. The most prevalent comorbidities were diabetes (31.3%), CKD (SD=8.1) and the median of total charges was $44,123 (mean=75,917, SD=103,651). The longest mean LOS was for patients with immune suppressing diseases (10.1 days) and the highest median charges was for patients with liver disease ($56,778). Both mean LOS and median charges increased with greater number of comorbidities (zero=8.1, $37,445; one=8.7, $44,098; two=9.6, $51,642; three=9.4, $55,943; four or more=10.1, $62,257). Conclusions: Our findings show that LOS and charges associated with COVID-19 related IP visits increase with the number of selected comorbidities. This is consistent with other reports showing these conditions also increase mortality.