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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increasing ~4% of dollars), while biosimilars’ claims increased by 198% of claims and 6120% of costs. **Conclusions:** Health plans have recognized the value/savings and increased the use of biosimilars. The shift from the pharmacy/drug to the medical-benefit may be due to many of these biosimilars being infused. Future analysis should focus on individual biologics (innovator/biosimilar pairs), explore whether the findings vary by therapeutic area, agent, insurance plan and by region of the country.

**POSC404**

**ABSENCE PAYMENTS AND LOST TIME DUE TO SICK LEAVE, LONG- AND SHORT-TERM DISABILITY AND WORKERS’ COMPENSATION FOR EMPLOYEES WITH NON-DIABETIC ENDOCRINE DISORDERS IN THE UNITED STATES**

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**Objectives:** Use objective data to compare the prevalence of non-diabetic endocrine (NDM-ENDOCRINE) conditions, all-cause utilization of sick leave (SL), short-/long-term disability (STD/LTD, respectively) and workers’ compensation (WC) over time and to determine if constants are accurate over time and across benefits.

**Methods:** Retrospective analysis of the Workpartners Research Reference Database (2001–2019). Employees with medical claims for the United States Agency for Healthcare Research and Quality musculoskeletal conditions were identified annually. Annual severity measured by Charlson Comorbidity Index (CCI). For each benefit, analysis focused on prevalence, % of eligible employees (EMPs) filing leaves, mean days of leave, and median payments as a % of salary (PMTs). Disability/WC payments included lump-sum distributions and potentially extended beyond initiation year. WC claims without work absence were excluded. All leaves were aggregated by initiation year. Average days and PMTs for each benefit were compared to baseline (2001). **Results:** NDM-ENDOCRINE prevalence averaged 14.1% (11.5–15.7%) during the study. CCI increased from 0.387 to 0.160 at baseline. 52.0±8.1/3.0±0.1/1.1±0.1% of EMPs had leaves for SL/STD/LTD/WC. EMPs' averages 5.9±4.0/205.0/50.1/SL/STD/LTD/WC days of leave were highest in 2013/2002/2005. SL/STD/LTD/WC days of leave were highest in 2017/2016/2008/2010. **Conclusions:** Management of musculoskeletal conditions is a growing concern for employers. Their employees with musculoskeletal conditions used a different mix of absence benefits over time with varying durations and payments. Using a constant cost per day over time for all benefits to estimate absence costs is not accurate or appropriate.

**POSC406**

**PRODUCTIVITY LOSS ASSOCIATED WITH PREMATURE DEATHS DUE TO CHRONIC LYMPHOCYTIC LEUKAEMIA AND MULTIPLE MYELOMA IN SLOVAKIA: RESULTS FROM 2017 UNTIL 2019**

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**Objectives:** The main objective of our analysis was to model and calculate the productivity loss due to premature deaths due to chronic lymphocytic leukemia (CLL) and multiple myeloma (MM) in Slovakia from 2017 till 2019. **Methods:** We used human capital approach (HCA) applied to the field of health. HCA points out that disease might cause undesirable effects on productivity at work and at home. The workers who leaves the labour market due to premature mortality, the potential labour productivity towards the end of their working life will have been lost by society. We calculated the number of deaths of working-age individuals and detected average wage in industry. The age limit was 64 years, official retirement age. Once the age of individuals at the time of death and their expected gross lifetime wages were known, the present and future flow of productivity lost because of premature death were calculated. Additional attributes such as employment rate and working population rate were used to finalise calculations. **Results:** Cumulative productivity loss due to premature death using the HCA was increasing from €7.7 million in 2017 (€5.1 million MM; €2.6 million CLL) to €8.4 million in 2019 (€5.8 million MM; €3 million CLL). The average productivity loss on one patient with MM was on average €12.7 million and productivity loss due to CLL was €57.2 million.

**Conclusions:** We estimate that there are more than 30 new patients with MM and 80 with CLL each year. The results showed that productivity loss is still very high and rising and the best approach to stabilise the trend is early and accurate diagnosis and effective treatment from first treatment lines.

**POSC407**

**MONITORING OF REPORTED COVID-19 VACCINATION RATES IN COMMUNITY ONCOLOGY SETTINGS**

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**Objectives:** As of 05/27/21, 50.5% of the United States population had initiated COVID-19 vaccination. Vaccination rates, safety and efficacy among those on active chemotherapy are not well published. As a first step towards improving cancer patient care, we explored vaccination rates among patients on active chemotherapy to gain insights on its utilization in this population and improve care of cancer patients.

**Methods:** On 01/23/21, McKesson Specialty Health deployed a COVID-19 Vaccine Administration survey within its iKnowMed electronic health record platform. Cancer patients who answered the survey with ongoing chemotherapy 30 days prior to or after 01/21 and ≥2 office visits between 01/21 and 05/27 were included in the study. Self-reported and onsite vaccination, brand, and COVID-19 related information were recorded. Chi-squared tests were used to determine significant differences between groups. **Results:** Selection criteria yielded 50,423 patients. The study population was 55% female (n=27,923) with a median age of 68 years (min, max 20, 80+). Approximately 60% (n=11,867) reported initiating vacci- nation, and 40% (n=7,797) reported being fully vaccinated. The majority of patients reported having received the vaccine by Pfizer (52%, n=10,275), followed by Moderna (45%, n=8,836), Janssen (3%, n=540), and AstraZeneca <1%. Vaccination rates did not differ significantly between females (39%, n=10,799) and males (39%, n=8,865). Patients aged >65 years had a significantly lower rate than those older (34%, n=8,928 vs 44%, n=10,736; p<0.0001). Patients with metastatic disease had a significantly higher vaccination rate than those without metastasis (40%, n=14,591 vs. 36%, n=10,875; p=0.0001). **Conclusions:** This study marks an initial review of the first 6 months post emergency use authorization of COVID-19 vaccinations. The survey responses could not be validated with external data sources. Continued research is...
needed to investigate reasons for lower rates, adverse effects, and treatment selection, and to monitor patient outcomes amongst vaccinated patients on chemotherapy.

**POSOC408**

**DEMOGRAPHIC CHARACTERISTICS AND INITIAL DIAGNOSTIC STAGING OF PATIENTS WITH NON-SMALL CELL LUNG CANCER ACROSS LARGE COMMUNITY HEALTH SYSTEMS IN THE US**

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**Objectives:** Community health systems play a large role in the care of patients with cancer with these systems treating over 20% of patients with cancer across the US. The profile of patients with lung cancer seen in community health systems within the US are not widely published. This analysis describes the demographic and diagnostic staging characteristics of patients with Non-Small Cell Lung Cancer (NSCLC) treated across a sample of community health systems. **Methods:** A retrospective analysis was performed utilizing the Syapse Learning Health Network (SLHN), an electronic medical record (EMR) derived database that collects cancer care data from multiple care settings that make up the US community health systems across 33 states, 450+ hospitals and 1,900+ community employed oncologists. Patients aged >18 yo at NSCLC diagnosis from January 1, 2010 through June 22, 2021 were identified from the SLHN using ICD-10 codes. Data utilized for this analysis included both structured data (set EMR fields like sex, birth date) and unstructured data (physician notes) validated by Syapse’s Certified Tumor Registrars and then descriptively summarized. **Results:** 18,489 patients from the SLHN with NSCLC were included in the analysis. Patient demographics included: median age of 69 years at initial lung cancer diagnosis; 52% female, 48% male; 76% White, 13% Black, 2% Asian, 9% other; 2% of Hispanic/Latino ethnicity. 18,488 patients had stage at diagnosis available and in turn 49% were diagnosed in the early stages (0-IIA), 44% were diagnosed with advanced disease (IIIB+) and 8% were unknown. **Conclusions:** This project describes the demographic and diagnostic staging characteristics of patients with lung cancer seen in community health systems within the US. These results may provide further opportunity to explore clinical aspects of these patients to help with earlier detection.

**POSOC409**

**DEMOGRAPHIC CHARACTERISTICS AND INITIAL DIAGNOSTIC STAGING OF PATIENTS WITH BREAST CANCER ACROSS LARGE COMMUNITY HEALTH SYSTEMS IN THE US**

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**Objectives:** Community health systems (CHS) play a large role in the care of patients with cancer with these systems treating over 50% of patients with cancer across the US. This analysis describes the demographic and diagnostic staging characteristics of patients with breast cancer treated across a sample of CHS. **Methods:** A retrospective analysis was performed utilizing the Syapse Learning Health Network (SLHN), an electronic medical record (EMR) derived database that collects cancer care data from multiple care settings that make up the US CHS across 33 states, 450+ hospitals and 1,900+ community employed oncologists. Patients aged >18 yo at breast cancer diagnosis from January 1, 2010 - June 22, 2021 were identified from the SLHN using ICD-10 codes. Data utilized for this analysis included both structured data (set EMR fields like sex, birth date) and unstructured data (physician notes) validated by Syapse’s Certified Tumor Registrars and then descriptively summarized. **Results:** 33,706 patients from the SLHN were included in the analysis. Patient demographics included: median age of 62 years at breast cancer diagnosis with 79% being >50 years of age; 99% female; 79% White, 15% Black, 3% Asian, 3% other; 4% of Hispanic/Latino ethnicity. 32,356 patients had stage at diagnosis available; 90% were diagnosed in the early stages (0-IIA) and 10% were diagnosed in the advanced stages (IIIB+). **Conclusions:** Patients with breast cancer treated in community health systems within the US were elderly, skewed slightly more female and predominantly white. Four out of ten of these NSCLC patients were diagnosed with advanced disease indicating further opportunity to explore clinical aspects of these patients to help with earlier detection.

**POSOC410**

**HEALTHCARE UTILIZATION, MORTALITY, AND COST OF SEPSIS POST-URETEROSCOPY AMONG A MEDICARE POPULATION**

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**Objectives:** Among stone disease patients, a potential serious complication of ureteroscopy (URS) is sepsis. Healthcare utilization and outcomes including death have not been previously reported. The objective of the current study was to evaluate healthcare utilization, in-hospital mortality, and costs of sepsis post-URS among a Medicare population. **Methods:** A retrospective analysis conducted using Medicare Standard Analytical File (SAF) 5% sample. Patients aged 18+ were included if they had an index URS procedure between January 2019 and August 2020, and a sepsis or severe sepsis diagnosis on an inpatient claim within 30-days post-URS. Healthcare utilization including inpatient length of stay, Intensive Care Unit (ICU) visits, and ICU length of stay, as well as in-hospital mortality and medical costs associated with the sepsis/severe sepsis hospitalization were measured. **Results:** A total of 41,136 patients developed sepsis or severe sepsis post-URS. Among these, 22,000 developed sepsis while 19,136 developed severe sepsis. Among the sepsis cohort, the mean time to sepsis diagnosis was 3.3 (± 7.2) days and the mean length of inpatient stay was 6.7 (± 6.7) days. Further, 40.8% required ICU care and their mean length of ICU stay was 5.1 (± 5.1) days. The in-hospital mortality was 1.6% and the average medical cost associated with the claim of sepsis was $17,211 (± 21,487). Among the severe sepsis cohort, the mean time to sepsis diagnosis was 2.5 (± 6.5) days and the mean length of inpatient stay was 9.1 (± 9.0) days. Further, 77.6% required ICU care and their mean length of ICU stay was 6.0 (± 6.6) days. The in-hospital mortality was 7.5% and the average medical cost associated with the claim of severe sepsis was $27,181 (± 34,860). **Conclusions:** Among patients who developed sepsis or severe sepsis post-URS, a majority required ICU care. The mortality rate and healthcare costs associated with these cases may place a significant burden on the healthcare system.

**POSOC411**

**MULTI-STATE MODELLING ACCURATELY CHARACTERISES THE PERSISTENCE TO DISTINCT PREVENTIVE TREATMENT LINES IN MIGRAINE PATIENTS**

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**Objectives:** Preventive therapy is prescribed to decrease the frequency and severity of migraine attacks, but treatment persistence is currently low. The aim of this analysis is to delve into the discontinuation patterns among migraine patients subject to multiple preventive treatment lines. **Methods:** The BIG-PAC® database was used to retrieve one-year follow-up data of 7,866 adult migraine patients who had started oral preventive medication between 01/01/2016 and 30/06/2018. Since traditional survival analyses provide a truncated view of patient’s persistence over time while considering persistence a dichotomous variable, a Multi-state Model (MSM) was applied instead. A Multi-state Cox model of proportional hazards was designed including first, second and third or fourth treatment lines as well as discontinuation as four possible states. At each state, patients could continue, discontinue or switch treatments. Switching between treatment lines (≤ 60 days since last prescription) were not considered discontinuation events. Included covariates were gender, age, Charlson Comorbidity Index and time since diagnosis. **Results:** 22% (30.4%) patients persisted with the treatment by maintaining it or switching medications. First-line median time was 162 (95%CI: 158-166) days. Compared to those who had only been prescribed a single drug, patients in the second or the third and fourth lines had a lower risk of discontinuation (HR: 0.24; 95%CI: 0.18-0.31 and HR: 0.21; 95%CI: 0.03-1.433; respectively). Additionally, increasing age was significantly associated with the risk of discontinuing the treatment (5-year HR: 5.06 and 5.1; P<0.001 for the first and second lines, respectively). **Conclusions:** MSM better describes complex real-world clinical scenarios whereby discontinuation rates may vary according to the treatment line. Since patients tend to discontinue the first line more often, providing alternative measures in a timely manner, like closer patient follow-up, dosage adjustment or an alternative therapeutic option during that time period, could help to improve persistence.

**POSOC412**

**ECONOMIC BURDEN OF DIABETES IN ITALY FROM THE SOCIAL SECURITY SYSTEM PERSPECTIVE**

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