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**PIN80 UNDERSTANDING REAL-WORLD UTILIZATION OF PRE-EXPOSURE PROPHYLAXIS (PrEP): DATA FROM TRIO HEALTH HIV RESEARCH NETWORK**

Raditchenko J,1 Ellen R

1Trio Health, Louisville, CO, USA, 2George Washington University School of Medicine, Washington, DC, USA

**Objectives:** In February 2019, the US Department of Health and Human Services proposed a strategic initiative to end human immunodeficiency virus (HIV) epidemic in the US by reducing new HIV infections by 90% in 2020–2030. One of the 4 pillars of the initiative is protecting persons at risk for HIV infection using HIV PrEP (antiretrovirals proven effective at preventing infection among persons at risk). We investigated PrEP uptake, adherence, and discontinuation among patients in care at 11 large geographically distributed US HIV treatment centers. **Methods:** Trio Health HIV Research Network containing electronic medical records for over 130,000 HIV and non-HIV patients was used for the study. PrEP patient registry contains nearly 9,000 patients with PrEP prescriptions and over 5,000 with PrEP dispenses. **Results:** Of 5,523 adults with PrEP dispensing data, 66% were male, 4% female, <1% transgender, and 30% unspecified gender; 59% were white, 12% black, 10% other race; 19% unknown; 86% were age <50 at PrEP initiation. Emtricitabine/tenofovir disoproxil fumarate (FTC/TDF) was dispensed to 81% of patients, FTC/tenofovir alafenamide (TAF) to 47%. Average PrEP duration was 10.2 mo (SD 9.9); 12 mo (11.6) FTC/TDF, 7.2 mo (4.4) FTC/TAF. Average medication possession ratio was 88%: 87% for FTC/TDF, 93% for FTC/TAF. **Conclusions:** Trio Health HIV Research Network is dynamic data collection that provides insight into patterns of PrEP prescribing and dispensing, patient experience and adherence, longitudinal changes in comorbidities and laboratory values, frequency and time to seroconversion. Continued collection and analysis of patient data will broaden PrEP awareness and optimize patient outcomes.

**PIN81 TOWARDS A BETTER UNDERSTANDING OF COVID-19 AMONG YOUNG ADULTS AGES 18-24**

M Sands-Lincoln,1 Huang H,2 Jackson GP,1 Wang S1

1IBM Watson Health, San Francisco, CA, USA, 2IBM Watson Health, Cambridge, MA, USA

**Objectives:** The impact of COVID-19 on young adults is not well understood. The aim of this study was to identify factors associated with hospital utilization of young adult patients with COVID-19. **Methods:** Young adult patients (ages 18-24 years) diagnosed with COVID-19 between December 2019 and August 2020 were identified in the IBM® Explorys® database. Positive infection was determined via the Systematized Nomenclature of Medicine-Clinical Terms (SNOMED-CT) codes. Chi-square test, univariate, and multivariate logistic regression were employed to evaluate the association between key risk factors, including sociodemographics, and hospital admissions to the emergency department (ED), inpatient units, and intensive care unit (ICUs). **Results:** 6648 young adult patients (mean 21.9 years, 59.6% female) with confirmed COVID-19 were identified. Forty-nine percent were Caucasian, 34% African American, 0.8% Asian, 8.9% Hispanic and 3.6% Other Race. Common symptoms included cough (25.6%), fever (15%), headache (10.6%), loss of smell (6.4%), loss of taste (6.2%), nausea (5.5%), and fatigue (4.6%). Among these, 910 (13.7%) were seen in the ED; 184 (2.8%) inpatient admission, and 23 (0.3%) ICU admission. Multivariate logistic regression suggested that both African American (OR=2.38, 95% CI: [1.63-3.33]) and Other Race (OR=4.99, 95% CI: [2.62-9.08]) patients were significantly associated with increased odds of hospitalization (OR=4.99, 95% CI: [2.79-5.70]). Cardiovascular disease (OR=4.01, 95% CI: [2.79 - 5.70]) and obesity (OR=3.03, 95% CI: [2.14 - 4.34]) were associated with the increased odds of hospitalization. Obesity was also associated with increased odds of ED visits (OR=1.45 95% CI: [1.24-1.69]). African American, Hispanic and Other Race had increased odds of ED visits (OR=2.24, 95% CI: [1.91-2.64]; OR=1.34, 95% CI: [1.01-1.76]; OR=3.48, 95% CI: [2.51-4.77], respectively). **Conclusions:** Young adult patients typically have milder COVID-19 symptoms, yet 18% required emergency department or hospital care. Cardiovascular disease, obesity and race/ethnicity were important risk factors. Additional research is needed to better understand disease severity among young adults.

**PIN82 REAL-WORLD UTILIZATION OF REMDESIVIR IN 2020: A RETROSPECTIVE COHORT STUDY**

Mozaffari E,1 Chandak A,1 Liang S,2 Gayle J,1 Baubrich R,1 Thrurn M1

1Hodgkins P,1 2Gilead Sciences, Foster City, CA, USA, 3Centara, New York, NY, USA, 4Premier, Inc., Charlotte, NC, USA

**Objectives:** Remdesivir is an FDA approved treatment for hospitalized patients with COVID-19 infection and, in randomized controlled trials, RDV shortened time to recovery and improved clinical outcomes. Data are scarce on RDV utilization in real-world settings or how use has changed over the course of the pandemic. Using chargemaster inpatient data from the Premier Healthcare Database, we describe the patient population and use of RDV following Emergency Use Authorization. **Methods:** In this retrospective cohort study, adult patients admitted May 1st – Nov 30th 2020 with a primary or secondary discharge diagnosis of COVID-19 (ICD-10-CM: U07.1) were identified and their first COVID-related hospital admission was considered. Descriptive statistics were reported for demographic characteristics of RDV and non-RDV treated patients. RDV utilization over time and by region was examined. **Results:** Of the 190,529 patients hospitalized for COVID-19 in 823 hospitals, 55,030 (29%) were treated with RDV in 589 hospitals. RDV utilization over time increased from 5% of patients in May to 47% in Nov 2020. In Nov, RDV utilization was 57% in the West, followed by 49% in the South, 48% in the Midwest and 27% in the Northeast. Over time, RDV was initiated earlier in the course of hospitalization. Initiation within the first 2 days of hospitalization increased from 40% to 85% from May to Nov 2020. The average age was 63.6 years (SD=15.3) and 63.5 years (SD=17.3) for RDV-treated and non-RDV treated patients, respectively. More than half of the patients were non-Hispanic (RDV: 55%; Non-RDV: 52%) and about a quarter had commercial insurance (RDV: 28%; Non-RDV: 22%). Racial distribution (white, black, and other) was similar between RDV and non-RDV patients. **Conclusions:** Overall use of RDV and initiation within the first two days of hospitalization have substantially increased over the course of the pandemic in the United States.

**PIN83 THE COVID-19 RESEARCH DATABASE: BUILDING ONE OF THE LARGEST PRO BONO REAL-WORLD DATA REPOSITORIES**

Talwai A,1 Wing V,1 Itzkovich Y,2 Galaznik A,1 Chatterjee A,1 Jain R,2 LaBonte J3

1Acon AI, a Medidata company, Revere, MA, USA, 2Acon AI, a Medidata company, Cambridge, MA, USA, 3Acon AI, a Medidata company, Boston, MA, USA, 4Acorn AI, a Medidata company, Arlington, MA, USA, 5Datavant, San Francisco, CA, USA

**Objectives:** The successful deployment of the COVID-19 database is a concrete example of the possibility and potential of integrating disparate datasets for rapid research and can serve as a roadmap for future efforts.