Improved HIV markers and decreased emergency room usage and hospital admission with initiation of a pilot specialty pharmacy at a southeastern Ryan–White–funded clinic over a three year period

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1352. Improved HIV markers and decreased emergency room usage and hospital admission with initiation of a pilot specialty pharmacy at a southeastern Ryan-funded clinic over a three year period

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Methods. This is a single center retrospective chart review of patients at our clinic who were enrolled in the SP from 6/3/13–5/14/16 for at least 6 months. Baseline demographic characteristics and HIV markers (CD4, viral load) were collected. Outcomes of interest were: change in CD4 count, percent with viral suppression (VS), emergency room (ER) and hospital admission usage, as well as percent of scheduled appointments kept. Each individual had the same follow up time before and after SP initiation. Bivariate analysis compared outcomes preSP and during SP using Chi-square or Fisher exact tests for categorical and Wilcoxon rank-sum test for continuous variables.

Results. During the 3-year period, there were 212 individuals referred to SP, of which 170 participated in the program. There were 92(54.3%) men, 136(60.8%) black. The median age was 48.3 years (IQR: 28.5–56.3). The average duration of follow up pre and post SP was 32.5±11.6 months. The respective outcomes before and after SP initiation were: change in CD4 count (21.8±15.5 vs. 15.2±12.1, p<0.0001), viral load from 4.0 log copies/mL to 3.7 log copies/mL (p<0.036). There was no difference in the rate of patients’ appointments’ delays (66.6% (IQR: 53.8–78.6%) vs. 63.8% (50–77%) (p = 0.19). There was no reported death during the follow-up period.

Conclusion. This pilot SP program at the RW clinic showed statistically significant improvements in HIV markers and hospitalization rate. Further studies are needed to determine whether SP is beneficial to people living with HIV/AIDS in other settings.

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1353. HIV Risk Assessment using Longitudinal Electronic Health Records

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Methods. 181 individuals who received care at an academic medical center in New York City prior to a confirmatory HIV diagnosis were included in the study cohort. 543 HIV control patients with similar utilization patterns were selected using propensity score matching. Demographics, laboratory tests, and diagnosis codes were extracted from longitudinal records. Clinical notes were preprocessed using both topic modeling and n-grams approach. We fit 3 predictive models using Random Forests including a baseline model which included only structured EHR data. We sought to characterize whether clinical notes can improve predictive models of HIV diagnosis.

Results. Predictive models demonstrated a range of performance with F-measures of 0.59 for the baseline model, 0.63 for the baseline plus topic modeling and 0.74 for the baseline plus clinical keyword model. The baseline plus topic modeling displayed low precision but high recall while the baseline plus clinical keyword model displayed high precision but low recall. Clinical keywords including ‘msm’, ‘unprotected’, ‘hiv’, and ‘methamphetamine’ were indicative of elevated risk.

Conclusion. Clinical notes improved the performance of predictive models for automatic risk assessment. Future studies should explore novel techniques for extracting social and behavioral determinants from unstructured text in longitudinal EHRs.

Disclosures. All authors: No reported disclosures.

1354. Linkage to HIV Outpatient Care Following an Inpatient Stay

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Methods. A total of 3,992 inpatient discharges were associated with the diagnosis of HIV and their discharge date, across various electronic systems used by MSHS hospitals. Additional visit data was pulled from the EMR used by the five HIV outpatient facilities in order to determine the linkage to care rate. Linkage to HIV care was defined as the proportion of patients who attended an appointment at one of the five HIV outpatient clinics with MSHS, within 90 days of discharge.

Results. A total of 3,992 inpatient discharges were associated with the diagnosis of HIV at the Mount Sinai Health System in 2016. Among these, 2,760 (69%) were male and 1,970 (49%) were African Americans while 56% were in the range of 50–69 years. The average length of stay was 6.6 days (SE±0.6). Out of these discharges, 1020 (25%) were with HIV to be seen at the Mount Sinai HIV outpatient care facilities within the 90 day interval. Subsequently, 275 patients (27%) have kept their appointments.

Conclusion. The data shows that a smaller proportion of the inpatient discharges is linked to care within the system in addition to low appointment compliance rate. Further efforts to enhance early linkage to care and retention may help to improve patient outcomes. Interventions focusing on chronic disease management may assist to further improve these rates. At the levels increased and increased discharge planning and coordination is required between inpatient units and outpatient clinics in addition to the launch of mobile clinics immediately upon discharge.

Disclosures. All authors: No reported disclosures.

1355. Healthcare Engagement among Persons with HIV: More Than Just Viral Load and Clinic Attendance

Nwora Lance Okeke, MD, MPH1; Meredith Clement, MD2; Mehri McKellar, MD3 and Jason Stout, MD MHS4

Methods. We conducted a retrospective analysis of patients with ≥ 1 HIV clinic visit at the Duke Adult Infectious Diseases Clinic between 2008 and 2013. Healthcare utilization was characterized by four indicators: clinic attendance in each half of the calendar year (yes/no), number of viral suppression (never, intermittent, always). Healthcare engagement patterns were modeled using latent class/latent transition analysis, with model fit assessed using the Bayesian Information Criterion.

Results. A broader definition of healthcare engagement revealed distinct and dynamic patterns among persons with HIV that would have been hidden had only clinical attendance and viral suppression been considered. These patterns may be useful for designing engagement-targeted interventions.

Disclosures. All authors: No reported disclosures.

1356. Social Determinants of Health and Disparities in Linkage to Care Among Newly Diagnosed HIV Cases – South Carolina, 2009–2011

Harriet Gill, MD1; Okeole Babatunde, MPH2; and Shawn Weissman, MD3

Methods. We conducted a retrospective analysis of patients with ≥ 1 HIV clinic visit at the Duke Adult Infectious Diseases Clinic between 2008 and 2013. Healthcare utilization was characterized by four indicators: clinic attendance in each half of the calendar year (yes/no), number of viral suppression (never, intermittent, always). Healthcare engagement patterns were modeled using latent class/latent transition analysis, with model fit assessed using the Bayesian Information Criterion.

Results. A broader definition of healthcare engagement revealed distinct and dynamic patterns among persons with HIV that would have been hidden had only clinical attendance and viral suppression been considered. These patterns may be useful for designing engagement-targeted interventions.

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