Evaluating the HIV Continuum of Care within a Large Integrated Health System

Michael J. Williams, PharmD1, Thomas J. Dilworth, PharmD, BCPS-AQ ID2
1PGY-1 Pharmacy Resident, Aurora Health Care Metro, Inc. 2Specialty Pharmacy Coordinator, Infectious Disease, Department of Pharmacy Services, Aurora St. Luke’s Medical Center

Background

Human Immunodeficiency Virus (HIV)

- Nearly 1 million persons ≥ 13 years of age in the United States are diagnosed and living with HIV1
- HIV is associated with 12,000 deaths from any cause2
- Antiretroviral therapy (ART) induces viral suppression and allows survival rates of those with HIV to become nearly equivalent to people without HIV3
- Viral suppression is defined by a viral load (VL) < 200 copies/mL

Acquired Immunodeficiency Syndrome (AIDS)

- Untreated HIV may progress to AIDS defined by CD4 count < 200 cells/CU/mL
- 7,000 deaths per year are due directly to AIDS3

HIV Care Continuum

- 2013 Centers for Disease and Control (CDC) initiative4
- Aimed to categorize the nation’s HIV-infected population
- Wisconsin performed a statewide evaluation using similar methodology
- In Wisconsin’s study, the proportion of patients diagnosed with concomitant HIV and AIDS decreased from 30% to 18% between 2012 and 20155
- Aurora Health Care (AHC), the largest not-for-profit health system in Wisconsin, sought to perform a similar evaluation within its 16 hospitals and 149 clinics

Objectives

Primary
- To describe the HIV continuum of care within the AHC system

Secondary
- To identify opportunities within the continuum to improve HIV care with a special focus on patients without ART and those not linked to care
- To compare AHC data to national and statewide results

Methods

Patient Inclusion Criteria

- ≥ 13 years of age and still living at the end of the specified time period
- Positive HIV rapid antigen and/or HIV antibody test within AHC between January 1, 2012 and August 16, 2016

Patient exclusion criteria

- Known diagnosis of HIV prior to the positive test within AHC

Data Collection

- All patients categorized below based upon data within one year from diagnosis6

Baseline Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Result</th>
<th>Characteristic</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male, n (%)</td>
<td>71 (82.6%)</td>
<td>Caucasian, n (%)</td>
<td>43 (50%)</td>
</tr>
<tr>
<td>Age at diagnosis, (years) (IQR)</td>
<td>39 (36, 49)</td>
<td>CD4 count (cells/mL) (median (IQR))</td>
<td>203 (33, 492)</td>
</tr>
<tr>
<td>Viral load (copies/mL) (median (IQR))</td>
<td>63,327 (16,952, 226,391)</td>
<td>Lab services not specified collection setting, n (%)</td>
<td>52 (60.4%)</td>
</tr>
</tbody>
</table>

Results

Patient selection

- 211/79,442 (0.27%) patients initially queried had a reactive result
- 66/211 (40.8%) unique patients remained after removing duplicate medical record numbers and those excluded per criterion

Conclusions

- Retention in care was the largest disparity compared to national and state data with a strong correlation to viral suppression
- Current literature suggests improving HIV care via mobile reminders or HIV service coordinator positions, but research is ongoing6,7
- AHC aims to investigate external references and potentially create an internal referral network for newly HIV diagnosed patients

References