Lindsey Eitniear, PharmD, BCPS, AAHIVP, CDCA[1];
Joan Duggan, MD, FACP, AAHIVS[1]; Eric G. Sahloff, PharmD, AAHIVP[2]; [1]University of Toledo Medical Center, Toledo, Ohio; [2]University of Toledo, Toledo, Ohio

Session: 151. HIV: Care Continuum
Friday, October 4, 2019: 12:15 PM

Background. Data increasingly support the immunologic and public health advantages for a shortened time interval from HIV diagnosis, initiation of antiretroviral therapy (ART), and subsequent virologic suppression. Much of the current research on rapid or same-day ART has been performed in large urban centers with the infrastructure and support needed for these programs. This study assessed the time from HIV diagnosis to linkage to care (LTC), initiation of ART, and time to virologic suppression (TVS) in newly diagnosed, ART-naïve subjects at a Midwestern academic institution after structured programmatic changes to reduce TVS.

Methods. IRB-approved, single-center, retrospective cohort including all newly diagnosed, antiretroviral-naïve adult patients seen in the Ryan White Clinic (RWC) at the University of Toledo Medical Center with an on-site 340B pharmacy for their initial visit between January 1, 2015 and December 31, 2015 (control) and January 1, 2017 and December 31, 2017 (intervention)—see Table 1. Diagnosis of HIV and ART initiation took place in separate facilities and were the responsibility of independent entities. Exclusion criteria were previously receiving HIV care, ART-experienced, pregnant, or an active opportunistic infection. The primary outcome of time from HIV diagnosis to virologic suppression (VL < 200 copies/mL) was compared between groups. Secondary outcomes include time from diagnosis to LTC (initial clinic appointment) and time to initiation of ART.

Results. 72 patients were screened and 60 met inclusion criteria; 24 in the 2015 group and 36 in the 2017 group; 88% were male, 48% white. Median (IQR) time from diagnosis to viral suppression was 137 days (77–318) in 2015 vs. 78 (52–152) days in 2017 ($P = 0.028$). Time from diagnosis to first clinic visit remained similar (13.5 days vs. 15.5 days, $P = 0.791$), while time from first clinic visit to initiation of ART decreased significantly (15 vs. 0 days, $P < 0.001$). Additional outcomes are provided in Tables 2 and 3.

Conclusion. Time from first clinic visit to ART initiation was significantly shortened in this intervention and was the driving force to decreasing TVS. Additional research into barriers impacting time from diagnosis to LTC are needed to further shorten TVS.

Table 1: Rapid start Initiative

2015	• Standard of care (control) ○ Patient or HIV testing center calls for next available appointment ○ Diagnostic/baseline laboratory testing ordered prior to/at initial visit ○ Patient initiated on antiretroviral therapy (ART) at next scheduled visit (usually 1-2 weeks after the initial visit)
2017	• "Rapid" start (Intervention) ○ Patient or HIV testing center calls and Physician/Nurse Practitioner time slots available daily to accommodate new patient initial appointments and one week follow up appointments ○ New patient laboratory testing order sets created to facilitate diagnostic work up and baseline assessment ○ Social workers and on-site pharmacist instructed on utilization of multiple resources to obtain same-day/same appointment ART ○ ART selected based on current Department of Health and Human Services guidelines, baseline labs as available, and access (insurance, state drug assistance program, 340B assistance)

Table 2: Aggregated care cascade data from diagnosis to virologic suppression*

Primary Endpoints	**2015 n=21/24**	**2017 n=35/36**	**P-value**
Time of diagnosis to VL < 200 (D) Median (IQR)	137 (77-317.5)	78 (52-152)	**0.028**
	2015 n=20/24	**2017 n=35/36**	**P-value**
Time from diagnosis to VL < 40 (D) Median (IQR)	147 (95.8-345.5)	127 (70-205)	0.128
Secondary Endpoints	**2015 n=24**	**2017 n=36**	**P-value**
No. of clinic visits at 24 wks + 3 mo. Median (IQR)	3 (2.3-5.0)	4 (3.0-5.0)	0.590
Time from diagnosis to clinic (D)	13.5 (7.3-23.8)	15.5 (8.0-22.5)	0.791
Secondary Endpoints Median (IQR)	**2015 n=23**	**2017 n=36**	**P-value**
Time from diagnosis to ART (D)	34 (21.0-82.0)	15 (8.0-24.0)	**<0.001**
Time from clinic to ART (D)	15 (7.0-29.0)	0 (0.0)	**<0.001**
Secondary Endpoints Median (IQR)	**2015 n=21**	**2017 n=35**	**P-value**
Time from clinic to VL <200(D)	92 (58.0-188.0)	64 (44.0-118.0)	0.095
Time from ART to VL <200 (D)	70 (35.5-165.0)	61 (35.0-118.0)	0.660
Secondary Endpoints Median (IQR)	**2015 n=20**	**2017 n=35**	**P-value**
Time from clinic to VL < 40 (D)	135 (69.3-292.5)	110 (56.0-200.0)	0.178
Time from ART to VL <40 (D)	113 (37.0-280.3)	110 (55.0-179.0)	0.546

* subjects not achieving virologic endpoints not included in outcomes related to virologic suppression

Table 3: Time intervals among diagnosis, initial clinic visits, and initiation of ART

	2015 n=24	2017 n=36	P-value
Time from diagnosis to initial clinic n(%)			
0-3 days	3 (12.5)	6 (16.7)	0.259
4-7 days	3 (12.5)	6 (5.6)	
8-14 days	9 (37.5)	7 (19.4)	
> 14 days	9 (37.5)	21 (58.3)	
Time from diagnosis to ART n(%)			
0-3 days	0 (0.0)	6 (16.7)	0.091
4-7 days	0 (0.0)	1 (2.8)	
8-14 days	2 (8.3)	6 (16.7)	
> 14 days	21 (87.5)	23 (63.9)	
Did not take ART	1 (4.2)	0 (0.0)	
Time from initial clinic visit ART n(%)			
0-3 days	2 (8.3)	33 (91.7)	<0.001
4-7 days	4 (16.7)	0 (0.0)	
8-14 days	5 (20.8)	1 (2.8)	
> 14 days	11 (45.8)	2 (5.6)	
Did not take ART	1 (4.2)	0 (0.0)	

Disclosures. **All authors:** No reported disclosures.

1325. Inpatient Initiation of ART Improves Short-Term Mortality in People Living with HIV

Jamie Campbell, DO[1]; Christopher Polk, MD[1];
Danya Roshdy, PharmD, BCPS, BCIDP[2]; Michael Leonard, MD[1]; [1]Atrium Health, Charlotte, North Carolina; [2]Atrium Health - Antimicrobial Support Network, Charlotte, North Carolina

Session: 151. HIV: Care Continuum
Friday, October 4, 2019: 12:15 PM

Background. Treatment of HIV is recommended as soon as possible and early initiation of combined antiretroviral therapy (cART) is associated with improved engagement in care; however, treatment with cART is often deferred in hospitalized patients despite being correlated with improved outcomes. We implemented an institutional intervention to ensure all people living with HIV (PLwH) were on cART during hospitalization to improve patient outcomes.

Methods. We prospectively identified all PLwH hospitalized at our institution and had ID physicians and pharmacists ensure they were on appropriate cART and linked to outpatient care. We retrospectively collected clinical and lab data to assess the impact of our intervention on inpatient mortality, 30-day mortality, 30-day readmission rate, and frequency of outpatient follow-up. Patients were excluded from analysis if they were admitted for hospice care.

Results. We identified 389 patient admissions in 275 unique patients, of which 304 admissions were already on cART at admission. After ID physician assessment, 37 of the 85 not on cART at admission were initiated on therapy. We assessed the impact of this intervention on short-term outcomes as listed in Table 1.

Despite the intervention group having similar immunologic and virologic baseline characteristics to those not initiated on cART, their inpatient and 30-day mortality was similar to those already on cART. Readmission rates also decreased in the intervention group. Thirteen of 24 patients in the intervention group who could be tracked for long-term follow-up within our system achieved virologic suppression by 90 days after hospital discharge.

Conclusion. Inpatient treatment with cART during hospitalization improves short-term mortality outcomes. This study also demonstrates the value of inpatient cART treatment as most patients achieved virologic suppression at subsequent outpatient follow-up.

Table 1: Immunologic and virologic parameters by treatment group with hospital outcomes.

	On cART (n=304)	No cART (n=48)	Started cART intervention group (n=37)	
Mean CD4 count	461	242	195	p < 0.001
Virologic suppression (HIV VL <200 copies)	60% (n=183)	17% (n=8)	19% (n=7)	p < 0.001
Inpatient mortality	3% (n=10)	13% (n=6)	3% (n=1)	p = 0.001
30 day mortality	5% (n=15)	13% (n=6)	5% (n=2)	p = NS
30 day readmission	18% (n=54)	26% (n=10)	19% (n=7)	p = NS

Disclosures. **All authors:** No reported disclosures.

1326. Comorbid Mental Health Disorders Are a Key But Manageable Barrier to Suppression of HIV Viral Load

Tiffany Stivers, MSN, APRN[1]; J. Zachary Porterfield, MD/PhD[2];
Jana Collins, MS[3]; Justin Yang, MS[3]; Robert Parrish, CSW[3]; Alice Thornton, MD[1];
[1]University of Kentucky, Lexington, Kentucky; [2]School of Public Health, Yale University, New Haven, Connecticut; [3]University of Kentucky, Bluegrass Care Clinic, Lexington, Kentucky

Session: 151. HIV: Care Continuum
Friday, October 4, 2019: 12:15 PM