

Impact of Hospitalization on Antiretroviral Therapy for People Living with HIV



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Background

Persons living with HIV (PLWH) are frequently hospitalized, for reasons often unrelated to HIV. Transitioning of antiretroviral therapy (ART) while inpatient may not always be an immediate priority due to lack of knowledge, formulary restrictions, and patient status. This could lead to medication errors and gaps in therapy, which can persist at discharge and could lead to viral rebound and disease progression. The purpose of this study was to identify effects of hospitalization on ART for PLWH.

Objectives

- The primary objective was to determine the rate of ART restarted during hospitalization.
- Secondary objectives included rate at which inpatient ART was modified compared to outpatient regimen and risk factors associated with regimen modification

Methods

- This was a multi-center, retrospective cohort study of patients diagnosed with HIV and/or AIDS based on ICD-9 and ICD-10 codes O42 and B20, respectively.
- Inclusion criteria:** ≥ 18 years old, hospitalized between March 2016 to March 2018.
- Exclusion criteria:** Pregnant patients receiving only intravenous zidovudine during hospitalization
- Of the patients the 400 patients screened (200 from each site), 295 were on an outpatient ART regimen and were included in this study.
- Descriptive statistics were used for the primary outcome and to characterize the types of regimens patients were on.

Disclosures

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Results

Table 1. Demographics

Variable	Total (n=295)
Average age in years, (IQR)	47 (37-56)
Male Sex, (%)	175 (59)
Race, (%)	
• White	35 (12)
• Black	256 (87)
Length of Stay (days), mean (SD)	7 (6.9)
CD4 count (cells/mm3), median (IQR)	160 (29-398.5)
• <200	104 (35)
HIV RNA (copies/mL). median (IQR)	57,095 (1,961-171,144)
• <40	84 (30.5)
Receiving care in outpatient setting within last 12 months (%)	80 (27)
Outpatient ART, (%)	
• Single tablet regimen (STR)	151 (51)
• Multi tablet regimen (MTR)	144 (49)

Figure 1. Rate of ART Restarted

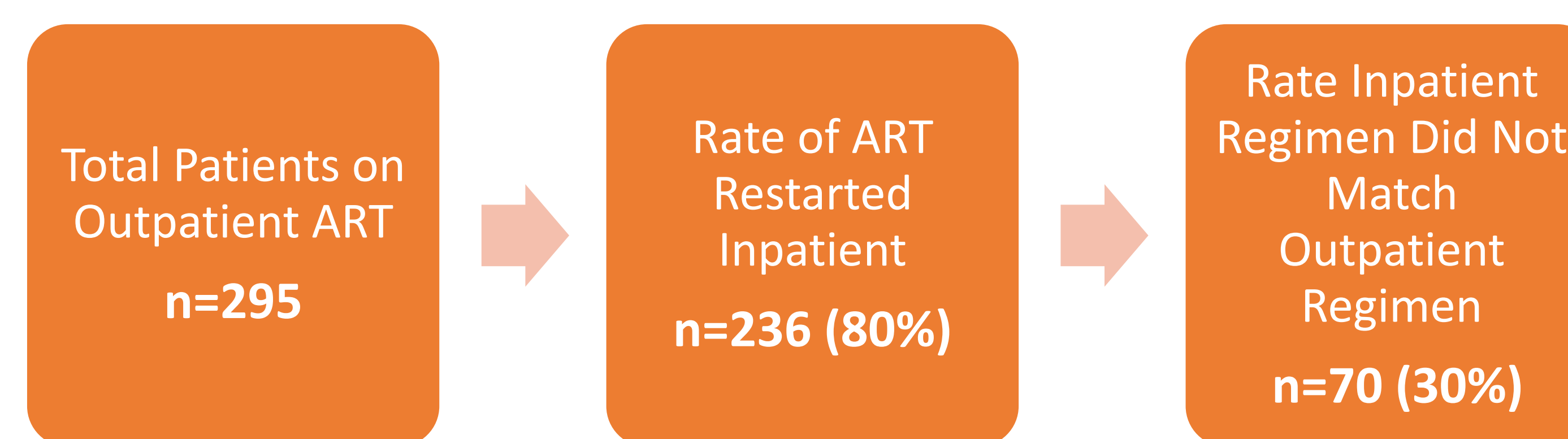


Table 2. Comparison of Outpatient and Inpatient ART

	Outpatient (n=295)	Inpatient (n=236)
Single Tablet Regimen (STR), (%)	151 (51)	90 (38)
• NNRTI Based	35 (23)	25 (28)
• INSTI Based	116 (77)	65 (72)
Multi Tablet Regimen (MTR), (%)*	156 (53)	155 (66)
• NNRTI-containing	103 (66)	24 (15)
• INSTI-containing	70 (49)	113 (73)
• PI-containing	85 (54)	69 (45)

*12 patients had regimens that contained an STR plus additional antiretroviral(s). Some patients received >1 class
NNRTI = non-nucleoside reverse transcriptase inhibitor
INSTI = integrase strand transfer inhibitor PI = protease inhibitor

Figure 2. Reasons Inpatient ART Did Not Match Outpatient ART (n = 70)

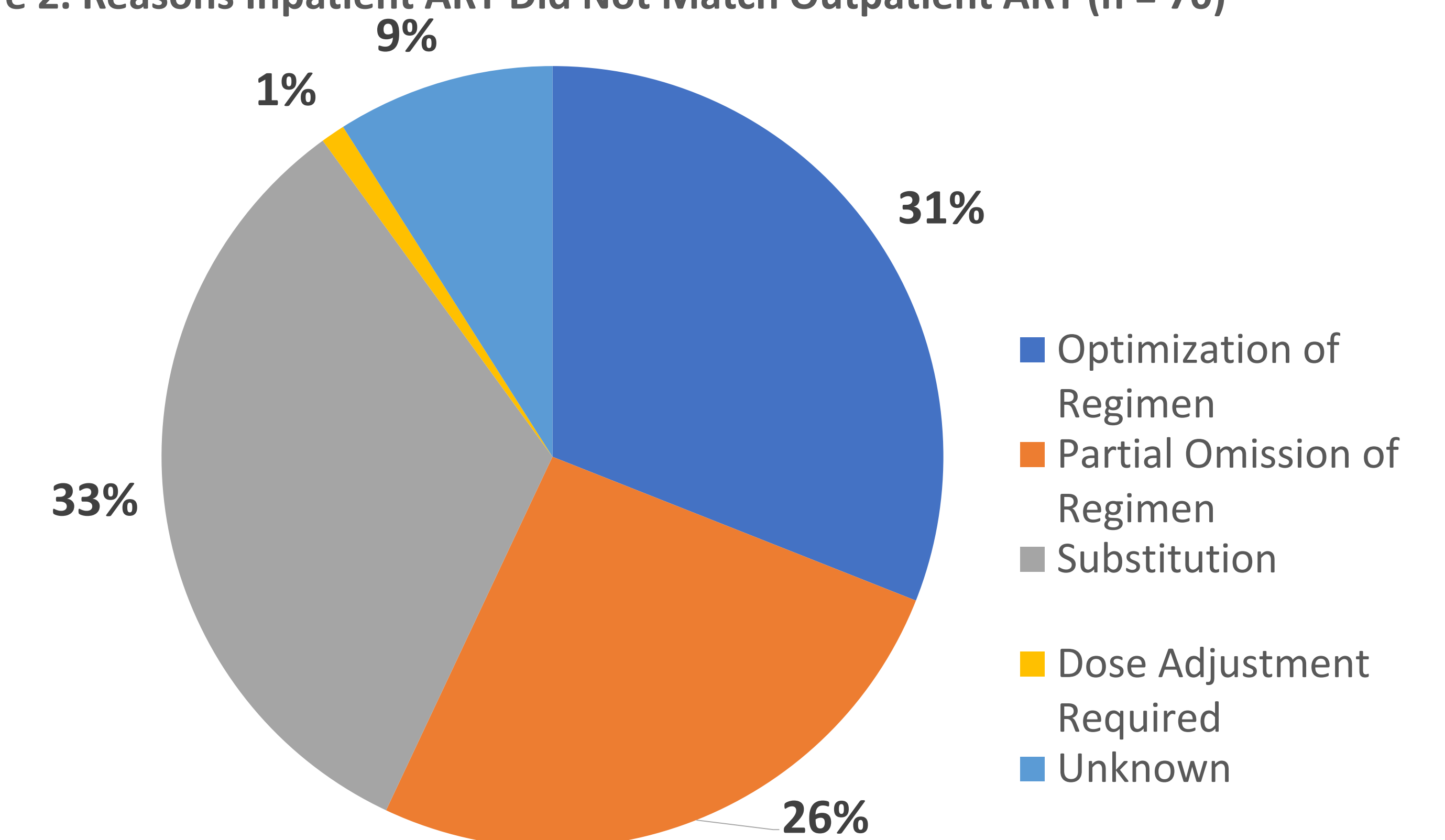


Table 3. Characteristics of Outpatient-Inpatient ART Mismatch

Variable n, (%)	Total (n=70)
Male Sex	40 (57)
Place of Admission	
• Intensive care unit	13 (19)
• Medical floor	54 (77)
• Unknown	3 (4)
Infectious Disease Team Consulted	31 (44)
Outpatient Regimen	
• Single tablet regimen (STR)	29 (41)
• Multi tablet regimen (MTR)	44 (63)

Conclusions

- Ensuring appropriate transition of ART throughout hospitalization (at admission, discharge and throughout stay) remains an area in need of improvement.
- No one specific factor was associated with whether outpatient ART was appropriately and accurately restarted during hospitalization.
- Thus, there are many opportunities to improve transitions of care and antiretroviral stewardship .
- Established antimicrobial stewardship programs provide an existing avenue to incorporate antiretroviral stewardship.

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