Single centre review of rapid antiretroviral therapy initiation during the COVID-19 pandemic

M. Ewens, M.M. Aung, E. Wrench, S. Schoeman, E. Page
Leeds Teaching Hospitals NHS Trust

Introduction

BHIVA released interim guidance on first line anti-retroviral therapy (ART) initiation during the COVID-19 pandemic[1], when investigations or follow-up was restricted.

Our HIV service didn't restrict follow-up but suspended in-house resistance testing due to laboratory capacity.

Having prescribed 'rapid ART' based on the Northern Algorithm, from 1st August 2020 to 1st January 2022, we wanted to evaluate our prescribing during the pandemic.

Methods

All new HIV diagnoses from 1st August 2020 to 31st December 2021 were identified via Leeds Teaching Hospitals NHS Trust's HARS dataset.

Retrospective case note review identified antiretroviral therapy prescribed, and switches that occurred upon baseline resistance test (RT) availability, to more suitable and/or cost-effective regimes.

Results

32 new diagnoses were identified for case note review.

Gender assigned at birth: 11 female, 21 male

Median age at diagnosis: 41 years (17-81)

Sexuality: 10 MSM, 22 Heterosexuals

Nationality:

- 14 White British
- 9 African
- 7 Other

Median time to ART initiation: 10 days (0-210)

Median CD4 count: 359 (2-1251), 8 had CD4<200

7/32 (22%) had Primary HIV infection, 5 of these (71%) initiating ART at 1st visit.

30/32 (94%) started ART within our service, 1 relocated, 1 initiated abroad.

28/30 (93%) started algorithm compliant rapid ART. Of the 2 that delayed, 1 had significant resistance, the other patient choice.

8/30 (27%) 'rapid ART' initiations switched post resistance test availability.

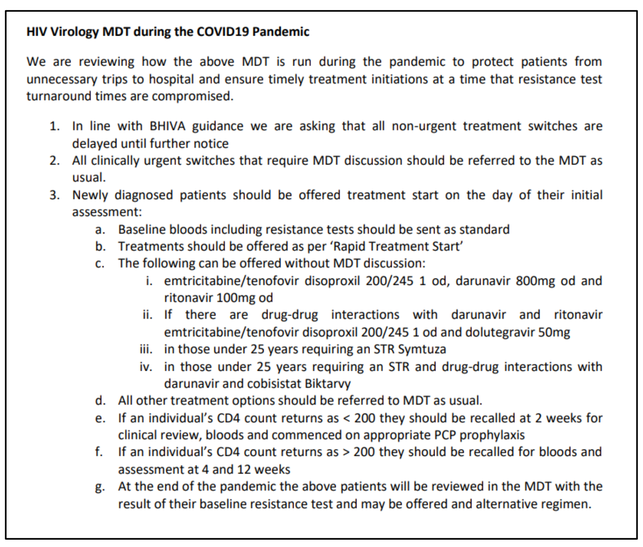
Conclusions

All patients initiating antiretroviral therapy in our service during the COVID-19 pandemic were algorithm compliant and fulfilled BHIVA recommendations.

7/10 starting Darunavir/r-based therapy switched to Delstrigo post resistance test availability, a more cost-effective single-tablet regime.

Zero patients on Biktarvy switched post resistance test, implying it is difficult to switch patients from integrase-based single-tablet regimens.

Future work includes comparing our results with other centres and reviewing antiretroviral therapy switches following the HIV National Prescribing Guide implementation.



HIV Virology MDT during the COVID19 Pandemic

We are reviewing how the above MDT is run during the pandemic to protect patients from unnecessary trips to hospital and ensure timely treatment initiations at a time that resistance test turnaround times are compromised.

1. In line with BHIVA guidance we are asking that all non-urgent treatment switches are delayed until further notice
2. All clinically urgent switches that require MDT discussion should be referred to the MDT as usual.
3. Newly diagnosed patients should be offered treatment start on the day of their initial assessment:
   a. Baseline bloods including resistance tests should be sent as standard
   b. Treatments should be offered as per 'Rapid Treatment Start'
   c. The following can be offered without MDT discussion:
      i. emtricitabine/tenofovir disoproxil 200/245 1 od, darunavir 800mg od and ritonavir 100mg od
      ii. If there are drug-drug interactions with darunavir and ritonavir emtricitabine/tenofovir disoproxil 200/245 1 od and dolutegravir 50mg
      iii. in those under 25 years requiring an STR Symtuza
      iv. in those under 25 years requiring an STR and drug-drug interactions with darunavir and cobisistat Biktarvy
   d. All other treatment options should be referred to MDT as usual.
   e. If an individual's CD4 count returns as < 200 they should be recalled at 2 weeks for clinical review, bloods and commenced on appropriate PCP prophylaxis
   f. If an individual's CD4 count returns as > 200 they should be recalled for bloods and assessment at 4 and 12 weeks
   g. At the end of the pandemic the above patients will be reviewed in the MDT with the result of their baseline resistance test and may be offered and alternative regimen.

Figure 1:
LTHT HIV Outpatient Service COVID Virology Guidance, 2020

ART initiated	Number	Algorithm compliant?	Virology MDT referral post RT result		ART switch?
			Yes	No	
F/TDF & Darunavir/r	10	Yes	4	6	4/4 referred switched to Delstrigo. 3 non-referred switched to Delstrigo, 3 no change.
F/TDF & Dolutegravir	8	Yes	1	7	Referred patient didn't switch. 1/7 non-referred switched to Delstrigo.
Biktarvy	7	Yes	0	7	No
Symtuza	3	Yes	2	1	No - High barrier single tablet regime (STR) required or research participant
Genovya	1	No	1	0	F/TAF & Dar/r (*initiated in The Netherlands*)
Symtuza & Dolutegravir	1	Yes	1	0	No, multi-class resistance
Delstrigo	1	Yes	1	0	No, initiated post RT

Table 1: Antiretroviral therapy initiation and switches

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References

1. BHIVA. BHIVA-interim-ART-guidelines-COVID-19; 2020. Available from: BHIVA-interim-ART-guidelines-COVID-19.pdf