

Characteristics and outcomes of inpatient COVID-19 infections in people living with HIV

S Jewsbury, A Garner, J Houston, M Polden, C Saxon, A Tomkins & V Lee
The Northern, Contraception, Sexual Health & HIV Service, Manchester University Hospitals NHS Foundation Trust

Background

- There is a paucity of data in the clinical characteristics and outcomes of people living with HIV (PLWHIV) diagnosed with COVID-19 infections.
- This case series describes our experience of PLWHIV, diagnosed with COVID-19 who received inpatient care from an HIV service in Manchester, UK.

Methods

- Characteristics including demographics, duration of admission, symptoms, relevant investigations, use of antibiotics and outcome were recorded from March to July 2020 of patients with suspected or confirmed COVID-19.
- Data was retrospectively collected from electronic patient records.

Results

- 16 PLWHIV were diagnosed with COVID-19 as an inpatient.

Table 1. Baseline Characteristics

Demographics and Characteristics	
Mean Age (range)	56.2 (46-68)
Gender	
Male (inc trans)	13 (81.3%)
Female (inc trans)	18.6 (18.75%)
Ethnicity	
Black and other minority ethnicities	14* (87.5%). Of note 31% of PLWHIV across the service are of BAME ethnicity
White	2 (12.5%)
Current smoker	1 (6.3%)

HIV		Co-morbidities *	
Medium years diagnosed	14.5 (1 -28)	Diabetes Mellitus	5 (31.3%)
Established on ARVs	16 (100%)	Hypertension	7 (43.8%)
Median CD4 pre COVID	603 (83 – 1236)	CV disease	5 (31.3%)
Median CD4 with COVID	393 (177-901)	Pre-existing renal disease	4 (25%)
HIV viral load pre COVID	All < 200	BMI > 30	7 (43.6%)

* Multimorbidity: 6 individuals had 2 comorbidities and 2 individuals had 3

Table 2. Summary of ARVs

Backbone	3 rd agent (No of patients)
TAF/FTC	DTG (3); BIC (1); EFV (1); DRV/c (1); RAL (1); RVP (1)
TDF/FTC	EFV (1); DRV/c (1); RAL (1)
ABC/3TC	EFV (1); DTG (1); RAL (1)
DRV/c	Nil (1)
DRV/c/3TC	DTG (1)

Contact email: sally.jewsbury@mft.nhs.uk

Results (continued)

Graph 1. Common presenting symptoms

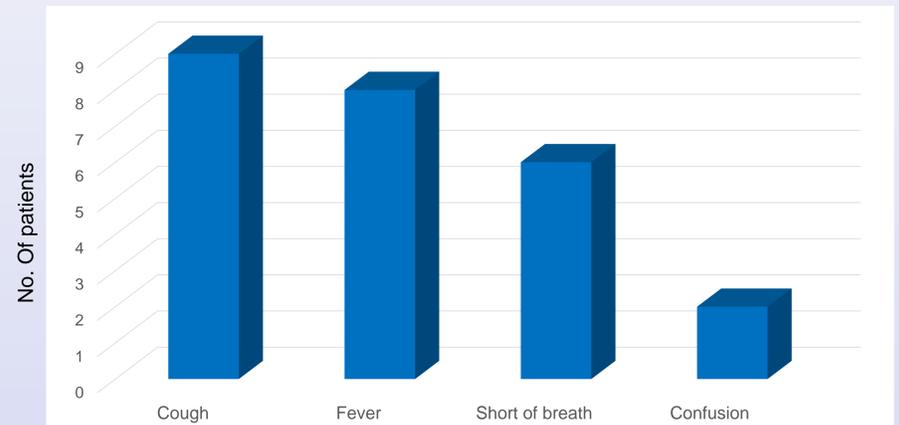


Table 3. Events and Outcomes

Events and Outcomes	
Received antibiotics	13 (81.3%), 2 (12.5%) unknown
New renal impairment	7* (43.8%), 1 (6.2%) unknown
Enrolled in COVID-19 trial	3 (18.75%)
Dexamethasone	2 (12.5%)
ICU admission	2 (12.5%), 1 required intubation
Death	4 (25%)

*One patient had to switch ARVs (from FTC/TAF/DTG to DOR/3TC/DTG)

Deaths

- Two COVID related deaths: both were in men, one of black African and one white British ethnicity. Both had a history of hypertension and presented with fever, shortness of breath and cough.
- The two other deaths were in individuals in the terminal phases of Cryptococcal meningitis and metastatic cancer.

Conclusions

- 75% of individuals (all with well-controlled HIV at the time of COVID-19 diagnosis) recovered.
- Black ethnicity, male gender, hypertension, diabetes mellitus, raised BMI, cardiovascular disease and pre-existing renal disease were common as reported in other populations¹.
- As in the general population, black individuals were disproportionately affected^{2,3}. The causes of this are multifactorial and require further exploration.
- Over 43% of individuals experienced new renal impairment. PLWHIV are already at risk of adverse renal outcomes and it is important to follow these individuals up to establish the long-term sequelae.
- Limited conclusions can be drawn due to the small size of the data pool, but this case series suggests that those with well controlled HIV have similar outcomes to the general population.

References

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