

HIV care during the SARSCOV-2 pandemic in black people with HIV in the UK

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HIV CARE DURING THE SARS-COV-2 PANDEMIC IN BLACK PEOPLE LIVING WITH HIV IN THE UK (COVID-AFRICA STUDY)



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DISCLOSURES

None



BACKGROUND

- People of black ethnicities were disproportionately affected by the COVID-19 pandemic, with higher rates of SARS-CoV-2 associated morbidity and mortality¹⁻⁵
- The COVID-19 pandemic, and its subsequent public health prevention measures, caused disruption to HIV services; affecting all components of the HIV care cascade⁶
- We evaluated ART interruptions and HIV viraemia during the COVID-19 pandemic, in people of black ethnicities living with HIV, who participated in the GEN-AFRICA study



METHODS

DESIGN	Multicentre observational cohort study
SETTING	Nine UK HIV clinics
INCLUSION	Enrolled in the GEN-AFRICA study (≥ 18 years; HIV positive; self-identified black ethnicity)
PRIMARY OUTCOME	ART interruption and/or HIV viraemia
ANALYSES	Logistic regression analysis; factors associated ($p < 0.1$) in univariate analysis were included in the multivariate model



RESULTS

2317 GEN-AFRICA study participants were receiving HIV care at the start of the COVID-19 pandemic (January, 2020).



PRE-PANDEMIC CHARACTERISTICS		All (N=2317)
Age, years	Median (IQR)	49 (43 - 56)
Sex, female	N (%)	1293 (56)
Region of ancestry	N (%)	
West Africa		768 (33)
Southern/ Central Africa		619 (27)
East Africa		451 (20)
Caribbean		315 (14)
Mixed/other		156 (7)
Time since HIV diagnosis, years	Median (IQR)	14 (9 - 18)
Nadir CD4 cell count, cells/mm³	Median (IQR)	204 (80 - 336)
Recent CD4 cell count, cells/mm³	Median (IQR)	497 (337- 656)
HIV RNA <200 copies/mL	N (%)	2134 (92)
Obesity	N (%)	919 (41)
Hypertension	N (%)	744 (32)
Diabetes	N (%)	217 (10)
Chronic kidney disease	N (%)	158 (7)
Cardiovascular disease	N (%)	99 (4)

Chronic kidney disease = estimated Glomerular Filtration Rate <60 mL/min/1.73m²; Cardiovascular disease = ischaemic heart disease, congestive cardiac failure, stroke;
Obesity = Body Mass Index ≥30 kg/m²

PATIENT STATUS, N=2317

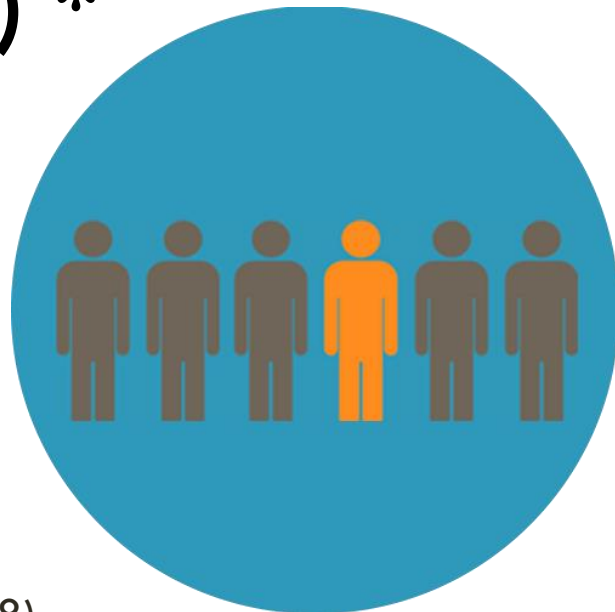
By November 2022:

- 24 (1.0%) had transferred their care to another clinic
- 30 (1.3%) had died
- 48 (2.1%) were no longer in HIV care



HIV OUTCOMES, N=2285 (99%)

399 (18%) reported an ART interruption and/or experienced HIV viraemia (HIV RNA >200 copies/mL) *



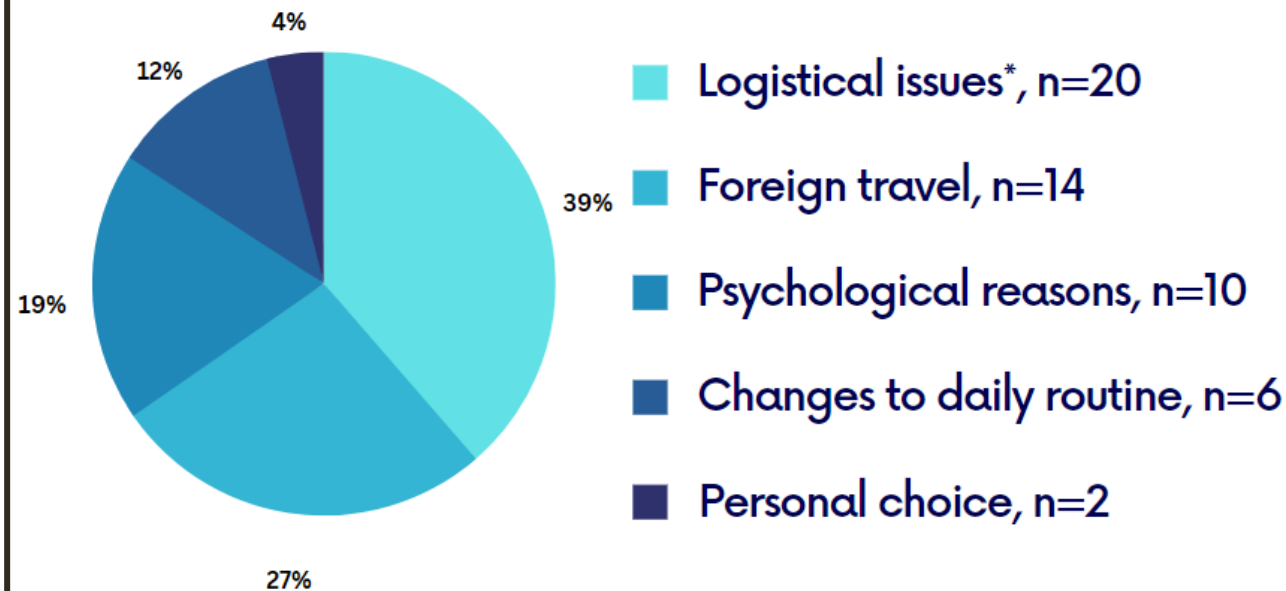
Includes those no longer in HIV CARE (N=48)



FACTORS ASSOCIATED WITH ART INTERRUPTION/HIV VIRAEMIA		Univariable		Multivariable	
		OR	p value	OR	p value
Age	20-29 years	1		1	
	30-39 years	0.61 (0.34-1.08)	0.09	0.69 (0.37-1.28)	0.24
	40-49 years	0.40 (0.24-0.68)	0.001	0.53 (0.30-0.93)	0.03
	50-59 years	0.40 (0.24-0.68)	0.001	0.53 (0.30-0.93)	0.03
	≥60 years	0.34 (0.19-0.59)	<0.001	0.48 (0.28-0.93)	0.02
Sex	Female	0.88 (0.72-1.10)	0.29		
Region of ancestry	West Africa	1		1	
	East Africa	0.68 (0.49-0.95)	0.03	0.73 (0.52-1.05)	0.09
	Southern/ Central Africa	1.00 (0.76-1.34)	0.97	1.03 (0.76-1.38)	0.87
	Caribbean	0.97 (0.68-1.37)	0.85	1.01 (0.70-1.45)	0.97
	Mixed/Other	1.65 (1.10-2.47)	0.02	1.51 (0.98-2.31)	0.06
Time since HIV diagnosis	Per year	0.98 (0.96-1.00)	0.02	0.99 (0.98-1.01)	0.56
CD4 Nadir (<200 cells/mm³)	Yes (vs. no)	1.00 (0.80-1.25)	0.97		
CD4 Current (≥350 cells/mm³)	Yes (vs. no)	0.71 (0.56-0.90)	0.01	0.82 (0.64-1.05)	0.12
HIV RNA pre-pandemic (<200 copies/mL)	Yes (vs. no)	0.19 (0.14-0.26)	<0.001	0.22 (0.16-0.30)	<0.001
AIDS	Yes (vs. no)	0.97 (0.74-1.27)	0.82		
Obesity	Yes (vs. no)	0.89 (0.71-1.11)	0.30		
Hypertension	Yes (vs. no)	0.93 (0.74-1.18)	0.56		
Diabetes	Yes (vs. no)	1.00 (0.69-1.46)	0.98		
Chronic kidney disease	Yes (vs. no)	0.91 (0.58-1.43)	0.68		
Cardiovascular disease	Yes (vs. no)	1.03 (0.60-1.76)	0.91		

REASONS FOR ART INTERRUPTION

Figure 1: Reasons for ART interruption



*Logistical issues including changes to booked appointments, pharmacy provisions, delivery service disruption



COVID-19 AND VACCINATION STATUS

COVID-19 STATUS N= 1,717 (74%)		Odds of experiencing ART interruption/ HIV viraemia
	523 (30%) reported COVID-19	OR 1.00 (0.74-1.31), p=0.94
	1,194 (70%) reported no COVID-19	OR 1.01 (0.76-1.34), p=0.94
VACCINATION STATUS N= 2033 (88%)		Odds of experiencing ART interruption/ HIV viraemia
	1771 (87%) were vaccinated	OR 0.38 (0.28-0.51), p<0.001
	262 (13%) were unvaccinated	OR 2.63 (1.96-3.57), p<0.001



SUMMARY

- We describe HIV outcomes in people of black ethnicity during the COVID-19 pandemic, with young people and those with poor pre-pandemic virological control, being more likely to report ART interruption and/or experience HIV viraemia
- Wider health beliefs, as reflected by SARS-CoV-2 vaccination status, were also associated with these undesirable HIV outcomes
- The COVID-19 pandemic (and restrictions) have exacerbated existing challenges in achieving and sustaining the HIV care continuum in this cohort
- Identifying those most at risk of poor outcomes may aid future pandemic preparedness



ACKNOWLEDGEMENTS

With thanks to:

- All study participants and staff at participating centres
- The COVID-AFRICA study group
- Our colleagues and friends at Africa Advocacy (PPI partner)
- Gilead Sciences for funding (IN-UK-983-6053)

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