EM RCM E RECOMENDADO PELAS GUIDELINES:
8 SEMANAS EM DOENTES *NAÏVE*[1-3*†]

8 SEMANAS:

O CAMINHO MAIS RÁPIDO PARA A CURA[Φ]

MAVIRET permite tratamento pangenotípico de 8 semanas para doentes *naïve*[1†] sempre sem ribavirina

DURAÇÃO ÚNICA DE 8 SEMANAS

Doentes *naïve*, GT1-6[1,†]

99,3%
RVS12

N=1.218/1.226, mITT[2]
Doentes *naïve*, GT1-6[1,4†]

ÚNICO PANGT DE 8 SEMANAS LIVRE DE RBV

Recomendado pela EASL para doentes *naïve*[3†Φ]

Foram incluídos no estudo EXPEDITION-8 doentes com biópsia hepática com um score METAVIR 4 (ou equivalente), FibroScan 14,6 kPa ou FibroTest 0,75 e APRI >2. Foram excluídos doentes com Child-Pugh >6 no *screening* e doentes com evidência passada ou presente de cirrose hepática descompensada, ou com Child-Pugh B ou C. *As guidelines EASL recomendam que o tratamento de doentes GT3 *naïve* com cirrose compensada pode ser encurtado para 8 semanas, sendo necessários mais dados para consolidar esta recomendação. †Doentes GT1-6 *naïve* sem cirrose ou com cirrose compensada. MAVIRET é contraindicado em doentes com cirrose descompensada. Em indivíduos submetidos a transplante renal ou hepático, com ou sem cirrose, é recomendado um tratamento de 12 semanas.[1] Maviret está indicado para o tratamento da infeção pelo vírus da hepatite C (VHC) crónica em adultos e em adolescentes com 12 a <18 anos de idade. ΦCura = Resposta virológica sustentada (RVS12), definida como sendo o ARN VHC não quantificável ou indetetável 12 semanas após o fim do tratamento, que foi o critério de avaliação primário para determinar a taxa de cura do VHC nos estudos de Fase 3. A dose recomendada de Maviret é 300 mg/120 mg (três comprimidos de 100 mg/40 mg), tomados por via oral, uma vez por dia, na mesma altura, com alimentos.

1. RCM MAVIRET, AbbVie, Lda.; 2. Hepatitis C Guidance 2019 Update: American Association for the Study of Liver Diseases–Infectious Diseases Society of America Recommendations for Testing, Managing, and Treating Hepatitis C Virus Infection. Hepatology 71(2), 2020; 3. EASL recommendations on treatment of hepatitis C: Final update of the series. Journal of Hepatology 2020; 4. Zuckerman E et al. Eight Weeks Treatment With Glecaprevir/Pibrentasvir Is Safe and Efficacious in an Integrated Analysis of Treatment-Naïve Patients With Hepatitis C Virus Infection, Clinical Gastroenterology and Hepatology 2020.

INFORMAÇÕES ESSENCIAIS COMPATÍVEIS COM O RESUMO DAS CARACTERÍSTICAS DO MEDICAMENTO

NOME DO MEDICAMENTO E FORMA FARMACÊUTICA: Maviret 100 mg/40 mg comprimidos revestidos por película. **COMPOSIÇÃO QUALITATIVA E QUANTITATIVA:** Cada comprimido revestido por película contém 100 mg de glecaprevir e 40 mg de pibrentasvir. **INDICAÇÕES TERAPÊUTICAS:** Maviret está indicado para o tratamento da infeção crónica pelo vírus da hepatite C (VHC) em adultos e crianças com idade igual ou superior a 3 anos. **POSOLOGIA E MODO DE ADMINISTRAÇÃO:** Adultos, adolescentes ou crianças com pelo menos 45 kg de peso – A dose recomendada de Maviret é 300 mg/120 mg (três comprimidos de 100 mg/40 mg), tomados por via oral, uma vez por dia, na mesma altura, com alimentos.

Genótipo	Duração recomendada do tratamento com Maviret para doentes sem exposição anterior ao tratamento para infeção por VHC	
	Sem cirrose	Cirrose
GT1-6	8 semanas	8 semanas

Genótipo	Duração recomendada do tratamento com Maviret para doentes que falharam terapia prévia com peg-IFN + ribavirina +/- sofosbuvir, ou sofosbuvir + ribavirina	
	Sem cirrose	Cirrose
GT1, 2, 4-6	8 semanas	12 semanas
GT3	16 semanas	16 semanas

Consultar o RCM para mais informações sobre Omissão de doses. Populações especiais: Idosos - Não é necessário ajuste posológico de Maviret em doentes idosos. Compromisso renal - Não é necessário ajuste posológico de Maviret em doentes com qualquer grau de compromisso renal incluindo doentes a fazer diálise. Compromisso hepático - Não é necessário ajuste posológico de Maviret em doentes com compromisso hepático ligeiro (Child-Pugh A). Maviret não é recomendado em doentes com compromisso hepático moderado (Child-Pugh B) e é contraindicado em doentes com compromisso hepático grave (Child-Pugh C). Doentes submetidos a transplante hepático ou renal - Um tratamento de 12 semanas foi avaliado, e é recomendado, em indivíduos submetidos a transplante renal ou hepático, com ou sem cirrose. Um tratamento de 16 semanas deverá ser considerado em doentes infetados com o genótipo 3 que tenham experiência de tratamento com peg-IFN + ribavirina +/- sofosbuvir, ou sofosbuvir + ribavirina. Consultar o RCM para mais informações sobre doentes com coinfeção por VIH-1. População pediátrica - A segurança e eficácia de Maviret em crianças com idade inferior a 3 anos ou com peso inferior a 12 kg não foram ainda estabelecidas e não existem dados disponíveis. A formulação de Maviret em granulado revestido destina-se a crianças com idade entre 3 e menos de 12 anos, e com peso entre 12 kg e menos de 45 kg. Consulte o RCM de Maviret granulado revestido em saqueta para instruções de dose baseadas no peso corporal. Uma vez que as formulações têm diferentes perfis farmacocinéticos, os comprimidos e o granulado revestido não são intercambiáveis. Deste modo, é necessário um ciclo completo de tratamento com a mesma formulação. Modo de administração: Via oral. Os doentes devem ser instruídos a engolir os comprimidos inteiros com alimentos e a não mastigar, esmagar ou partir os comprimidos uma vez que pode alterar a biodisponibilidade dos medicamentos. **CONTRAINDICAÇÕES:** Hipersensibilidade à substância ativa ou a qualquer um dos excipientes de Maviret. Utilização concomitante de medicamentos contendo atazanavir, atorvastatina, sinvastatina, dabigatrano etexilato, medicamentos contendo etinilestradiol, indutores potentes de gp-P e CYP3A (por exemplo rifampicina, carbamazepina, hipericão (Hypericum perforatum), fenobarbital, fenitoina e primidona). **ADVERTÊNCIAS E PRECAUÇÕES ESPECIAIS DE UTILIZAÇÃO:** Reativação do vírus da Hepatite B: Foram notificados casos de reativação do vírus da hepatite B (VHB), alguns deles fatais, durante ou após o tratamento com medicamentos antivirais de ação direta. Antes do início do tratamento, deve ser efetuada a pesquisa do VHB em todos os doentes. Os doentes coinfetados por VHC/VHB estão em risco de reativação do VHB e, por conseguinte, devem ser monitorizados e controlados de acordo com as orientações clínicas atuais. Doentes que falharam um regime prévio contendo um inibidor NS5A e/ou um NS3/4A: Os doentes infetados com genótipo 1 (e um número muito limitado de infetados com genótipo 4) com falência prévia em regimes que podem conferir resistência a glecaprevir/pibrentasvir foram estudados no estudo MAGELLAN-1. O risco de falência foi, como esperado, maior para aqueles expostos a ambas as classes. O algoritmo de resistência preditivo do risco de falência baseado na resistência basal ainda não foi estabelecido. A acumulação de resistência de dupla classe foi um achado geral para doentes que falharam em retratamento com glecaprevir/pibrentasvir no MAGELLAN-1. Não há dados de retratamento disponíveis para doentes infetados com genótipos 2, 3, 5 ou 6. Maviret não é recomendado para o retratamento de doentes com exposição prévia a inibidores NS3/4A e/ou NS5A. Utilização em doentes com diabetes: Após o início do tratamento com antivírico de ação direta para o VHC, os doentes com diabetes podem beneficiar de um melhor controlo da glucose, resultando potencialmente em hipoglicemia sintomática. Os níveis de glucose dos doentes com diabetes que tenham iniciado a terapêutica com antivírico de ação direta devem ser cuidadosamente monitorizados, em especial durante os 3 primeiros meses, e, quando necessário, os seus medicamentos para a diabetes devem ser alterados. O médico responsável pelo tratamento da diabetes deve ser informado sobre o início da terapêutica com antivírico de ação direta. Lactose: Maviret contém lactose. Doentes com problemas hereditários raros de intolerância à galactose, deficiência total de lactase ou malabsorção de glucose-galactose não devem tomar este medicamento. **INTERAÇÕES MEDICAMENTOSAS E OUTRAS FORMAS DE INTERAÇÃO:** Glecaprevir e pibrentasvir são inibidores da glicoproteína-P (gp-P), da proteína de resistência do cancro da mama (BCRP) e polipeptídeo transportador do anião orgânico (OATP) 1B1/3. Consultar o RCM para informações sobre: Potencial de Maviret para afetar outros medicamentos; Doentes Tratados com antagonistas da Vitamina K; Potencial de outros medicamentos para afetar Maviret; Interações medicamentosas estabelecidas e outras potenciais interações. **EFEITOS INDESEJÁVEIS:** As reações adversas mais frequentemente notificadas (incidência ≥ 10%) foram cefaleia e fadiga. Menos de 0,1% dos indivíduos tratados com Maviret tiveram reações adversas graves (acidente isquémico transitório). A proporção de indivíduos tratados com Maviret que descontinuaram permanentemente o tratamento devido a reações adversas foi de 0,1%. Consultar o RCM para mais informações relativamente a efeitos indesejáveis. ▼Este medicamento está sujeito a monitorização adicional. Isto irá permitir a rápida identificação de nova informação de segurança. Quaisquer suspeitas de reações adversas ao Maviret devem ser notificadas à AbbVie, Lda., via e-mail para pt.abbvie.farmacovigilancia@abbvie.com ou telefone para +351 211 908 400 e/ou ao INFARMED. I.P., através do sistema nacional de notificação, via e-mail para farmacovigilancia@infarmed.pt ou telefone para +351 217 987 373. Data de aprovação do texto de IECRCM: junho 2021 (Paed.form). Medicamento de receita médica restrita, de utilização reservada a certos meios especializados. Maviret encontra-se comparticipado ao abrigo do artigo 25.º do Decreto-Lei n.º 97/2015 pela Portaria n.º 158/2014, alterada pelas Portarias n.os 114 -A/2015, 216 -A/2015, 146 -B/2016, 181 -A/2016, 28/2017, 111/2017 e 35/2018. A indicação em crianças com idade igual ou superior a 3 anos não está comparticipada. Para mais informações deverá contactar o representante local do titular da autorização de introdução no mercado. Consultar o RCM antes de prescrever e sempre que necessite de informações complementares. Representante local do titular da AIM: AbbVie, Lda., Estrada de Alfragide, 67 - Alfrapark - Edifício D. 2610-008 Amadora. Portugal. Tel.: 211908400. Fax: 211908403. CRC Amadora NIF 510 229 050 – Capital Social €4.000 000. Data de preparação: 09/2021 | PT-MAVI-200033

abbvie

MAVIRET™
glecaprevir/pibrentasvir

ARTIGO ORIGINAL / *ORIGINAL ARTICLE*

Infeção VIH na população migrante em Lisboa: demografia, determinantes de infeção, padrões de resistência e seguimento

HIV infection in migrant populations in Lisbon: demographics, infection determinants, resistance patterns and follow-up

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Patrocínios:
O presente estudo não foi patrocinado por qualquer entidade.

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/ Resumo

Introdução: os migrantes diferem nos determinantes de saúde e nos *outcomes* associados à infeção por VIH e podem também distinguir-se na adesão e resposta à terapêutica e, consequentemente, na sobrevida.

Objetivos/métodos: o objetivo deste estudo foi caracterizar a população migrante em seguimento no nosso centro, através da consulta retrospetiva de processos clínicos.

Resultados: identificámos 541 migrantes, a maioria homens (68%), de países de língua portuguesa, principalmente Brasil (40%) e países de língua oficial portuguesa (42%). A infeção por VIH foi detetada no ano de entrada em Portugal em 24% dos doentes. A infeção por VIH-1 é preponderante (95%) e provavelmente de transmissão heterossexual (83.4%). À admissão, 39.9% foram diagnósticos tardios, 18.5% com infeções oportunistas, principalmente tuberculose ativa (29%). Identificámos principalmente infeções do subtipo B, 56.5% dos quais sem mutações de resistência. A maioria adere à terapêutica (85%) apresentando cargas virais indetetáveis. De todas as coinfecções, a de maior expressão é a hepatite B, 82.6% (n=130).

Conclusões: os migrantes representam uma percentagem importante dos doentes em seguimento no nosso centro (18%) e, comparativamente a outros coortes, há uma proporção significativa de doentes da África subsariana. As características da infeção são determinantes para a evolução da doença e comorbilidades que lhe estão associadas. O conhecimento das diferenças específicas de cada população é vital para a melhoria e adaptação das estratégias em saúde.

Palavras-chave: saúde em migrantes; infeção VIH; padrões de resistência de VIH

/ Abstract

Introduction: *Migrants differ in HIV-related health determinants and outcomes and they may also differ in uptake of and response to antiretroviral therapy and subsequent survival.*

Objectives/Methods: *The aim of this study was to characterise the migrant population under follow-up at our centre by retrospectively analysing clinical records.*

Results: *We identified 541 migrants, mostly men (68%), from Portuguese speaking countries, mainly Brazil (40%) and African Portuguese Speaking Countries (42%). HIV infection was diagnosed the same year they entered in Portugal in 24% of these patients. HIV-1 infection was preponderant (95%) and of probable heterosexual transmission (83.4%). On admission, 39.9% were late diagnosis, 18.5% presenting with opportunistic infections, more frequently active tuberculosis (29%). Most frequently we identified subtype B infections, 56.5% showing no resistance mutations. The majority (85%) are compliant with therapy having undetectable viral loads. Most significant coinfection is hepatitis B, accounting for 82.6% (n=130) of all coinfections.*

Conclusions: *Migrants represent an important percentage of patients attending our centre (18%), and compared to other cohorts we have a significant proportion of Sub-Saharan African patients. Characteristics of infection are determinant for the evolution of the disease and associated comorbidities. Understanding population-specific differences is vital in order to enhance and adapt health strategies.*

Keywords: *Migrant health; HIV infection; HIV resistance patterns*

/ Introduction

Population mobility has been identified as a key driver of the HIV epidemic, linking geographically separate epidemics and intensifying transmission through the introduction of risk behaviours that increase vulnerability to HIV infection.(1)

HIV disproportionately affects migrants. Reported data show migrants account for less than 1% of new diagnoses in Eastern Europe compared to 10% in Central Europe, and over 47% in the West.(2)

The increasing heterogeneity regarding geographical origin and ethnic backgrounds of human immunodeficiency virus (HIV)–positive patients in developed countries may lead to differences in uptake of and response to anti-retroviral therapy (ART) and subsequent survival.(1)

Hence, considering that our migrant population totals 18% of all 3013 patients under follow-up, we aimed to characterise the migrant population under follow-up at our Centre, with the purpose of better understanding its specifics and identifying possible differences regarding HIV infection in native population. Migrants are a special population with specific concerns, both clinical and social, therefore, addressing these issues will enhance follow-up and will help to mitigate some difficulties in access to healthcare.

/ Methodology

An analysis of patients' charts has been carried out, from the first appointment registered to the end of 2019. Given the specificities of follow-up and patient mobility in 2020 we decided not to consider it. Continuous follow-up was confirmed by regular chart notes, going two years back to the study date, and by cross-matching patients' identification number with the pharmacy registry. Clinical evolution was assessed by reviewing charts regarding each variable considered (Table I).

For this study, HIV patients were defined as individuals with positive serology for HIV (4th generation test) and migrants as "persons born abroad". Three thousand and thirteen patients attended follow-up appointments for HIV infection, at our Centre. Cohort based on nationality was selected and demographic, epidemiological and clinical data were gathered.

Patients were divided among the following groups: Europe (including all countries, except Portugal), African Portuguese Speaking Countries (APSC – Angola, Cape Verde, Guinea-Bissau, Mozambique and São Tomé and Príncipe), Africa (all other not mentioned before), South America (SA), North America (NA) and Asia. They were further divided according to migration driver in economic migrants, students, migrants for health purposes under bilateral health protocols and refugees.

TABLE I – DESCRIPTION OF VARIABLES USED	
Demographic variables	
Age, sex, nationality, migration driver, year of entrance in the country, number of years living in the country	
Characterisation of HIV infection	
Year of diagnosis and duration of infection	Difference between the year of diagnosis and the end of the study
Years of diagnosis in the country	Difference between date of entrance and date of diagnosis
Transmission	Men who have sex with men, mother-to-child, intravenous drug users, blood transfusion and multiple risk factors/behaviours
HIV type	Type 1, type 2 or type 1/ type 2 co-infection
Immunovirological state	CD4 count and viral load at diagnosis
Opportunistic infections	OI at diagnosis
Medical follow-up	Medical follow-up previous to the first appointment at our centre, previous antiretroviral therapy or naïve state
Resistance testing	Resistance mutations identification, HIV subtype
Immunovirological status at the time of the study	CD4 count and viral load at the time of data collection
Antiretroviral therapy	
Current ARV scheme	Drug combination at the time of data collection
Changes in ARV scheme	Whether ARV was switched during follow up
Therapy adhesion	Measured by checking pharmacy pick up registry and patient declaration of adhesion
Clinical evolution	
OI during follow-up	OI registered on the chart with or without hospital admission
Comorbidities	Existence of a confirmed diagnosis of kidney disease, heart failure, chronic liver disease, diabetes, dyslipidaemia, bone disease or hypertension
Coinfections	
Hepatitis B or hepatitis C diagnosis	

Ten patients whose charts were incomplete on the variables considered have been excluded as was one patient that resides in Guinea-Bissau flying over to Portugal for appointments.

This was an observational, retrospective, and descriptive analysis of one Centre's patient registry. A descriptive and comparative data analysis was carried out using SPSS Statistics.

The study protocol (number 1054/2021) was submitted and approved for publication by the research ethics committee. Individual informed consent was waived based on the study's characteristics and use of anonymized data. No intervention was performed.

/ Results

Demographical and epidemiological data

Five hundred and forty-one individuals were identified as being migrants; globally the majority were men (n=369; 68%), with a 41-year-old median age (SD 12.7). When analysing data based on geographic origin, we come across differences regarding country and sex distribution. Patients were mainly from APSC and SA.

Regarding those originating from SA (n=220) only three were from countries other than Brazil. Such preponderance was not identified in other regions. Most patients migrated for economic reasons. Population characteristics are detailed in Figure 1.

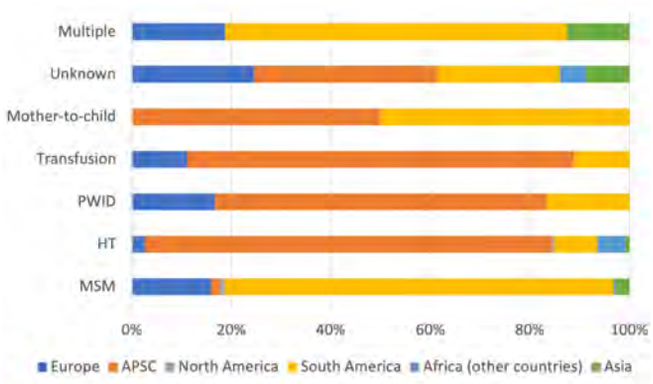

Figure 1 – Transmission route by region

Human Immunodeficiency Virus Infection

Globally, the most reported transmission route was sexual transmission (n=451, 83.4%), heterosexual contact in 42.7% (n=231) and men who have sex with men (MSM) in 40.7% (n=220). When detailing data by region, we also come across geographic differences (Figure 2). Diagnosis before migration is more common in those arriving from SA (50%), North America (100%) and Europe (45%), whereas patients from Africa or Asia were diagnosed in Portugal, in the year they entered the country or afterwards (APSC 27% vs 48%; Africa 24% vs 47% and Asia 33% vs 49%). HIV-1 accounts for 95% of cases, but 22 cases (4.1%) of HIV-2 infection and four cases (0.7%) of type-1 and type-2 coinfection were identified. Late diagnosis, defined as a CD4 T lymphocyte count under 350 cells/mm^3(2), was observed in 39.9% of migrants. Opportunistic infections (OI) were present at diagnosis in 18.5% of patients, tuberculosis being the most common (29%) and in 27% more than one OI was identified. Genotyping information in 290 patients (53.6%) and resistance testing in 259 (47.9%) were retrieved (Figure 2).

Of the resistance tests available, 177 had no resistance mutations and 48 had one mutation identified. (Table II) However, 87 patients had two or more mutations, mainly in individuals from APSC (n=74, 61%) and Brazil (n=21, 24%).

Anti-retroviral therapy (ART)

Eighty-five percent of migrants were compliant with therapy and appointments, resulting in only 60 patients with detectable viral

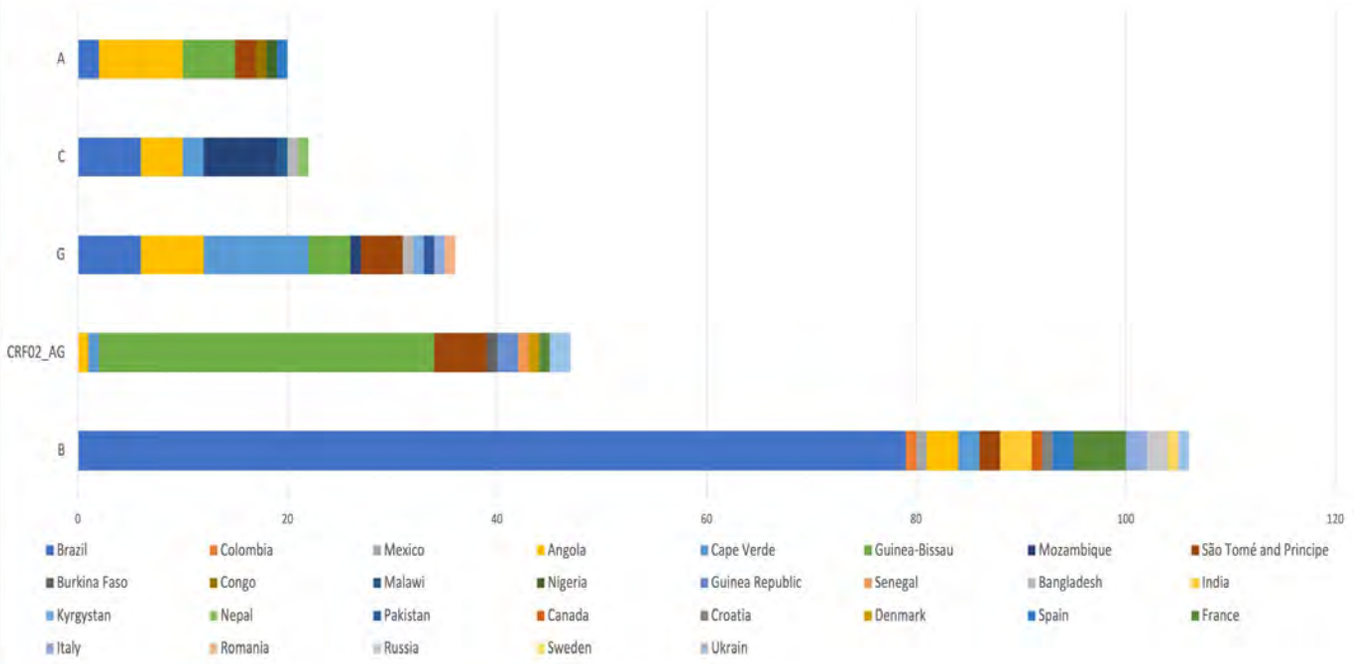

Figure 2 – HIV subtype prevalence by region

TABLE II – SINGLE MUTATION REGISTERED BY COUNTRY OF ORIGIN

Single mutations (n, %)				
Total	Brazil		APSC	Europe
48 (100%)	24 (50%)		19 (40%)	5 (10%)
Most common mutations (n, %)				
K103N	11 (23%)	6 (54.5%)	5 (45.5%)	0 (0%)
K20I	6 (13%)	0 (0%)	5 (83.3%)	1 (16.7%)
E138A	5 (10%)	2 (40%)	1 (20%)	1 (20%)

load. The majority (n=340, 63%) were naïve for ART and most (n=327, 96%) reported no follow-up prior to migration. Of the migrants already on ART (n=201), this was changed in 142 (70.6%) and maintained in 59 (29,4%).Currently, the choice of ART backbone is as described on Table III.

Clinical evolution

During follow-up, only 63 (12%) developed OI, tuberculosis being the most common (n=19, 30%), followed by oropharyngeal candidiasis (n=14, 22%), varicella-zoster (n=13, 21%), toxoplasmosis (n=6, 10%) and 19% (n=12) had more than one OI. Co-morbidities were identified in 54% of patients, mostly dyslipidaemia (n=144, 27%), followed by diabetes mellitus (n=41, 8%), chronic kidney disease (n=31, 6%), hypertension (n=23, 4%), bone mineral disease (n=23, 4%), heart failure (n=17, 3%) and chronic liver disease (n=14, 3%).

Loss to follow-up

Patients were considered lost to follow-up if they had not had a visit in the recruiting Centre for the previous 2 years. Hence, we identified sixty patients who were considered lost to follow-up, the majority of which migrated to other European countries, and seven patients died.

Other infections

In 178 migrants, coinfection with hepatotropic viruses (82.6%) or tuberculosis (20.8%) was present, 17.4% with simultaneous infection with both. As for coinfection with Hepatitis C virus (n=17) 35.3% have active infection and 41.1% were treated (23.5% spontaneous clearance). Hepatitis B virus coinfection is significantly more common (n=130, 24%), and in 35 patients (26.9%) is considered as active infection.

/ Discussion

Migrants from Africa, SA and Europe, accounted for the majority of HIV cases among migrants, in line with what is described in previous studies.(1) Unlike what we have identified, in other EU countries, Sub-Saharan Africans (SSA) are the largest group of HIV-infected migrants.(3)

In accordance with previous reviews(3), women account for the majority of patients from Africa, which might reflect the rising HIV prevalence or increased HIV-testing activity in their countries.

While MSM are the predominant population from SA, those reportedly infected via heterosexual transmission are mainly from African countries. Heterosexual transmission prevailed in all women and migrant men from Africa, whereas transmission by MSM predominated in men from SA.(3)

Migrants from SA may reflect selective migration. MSM might migrate from these regions due in search of better healthcare, since they have a higher percentage of well-controlled infection.(3)

Previous data suggest that the majority of migrants may have been infected in their country of origin, albeit more recent analysis show that an increasing proportion of HIV acquisition might be postmigration.(2) This has important repercussions on European public health policies.

Late diagnosis is associated with increased morbimortality.(2) Advanced disease was seen in a significant proportion of patients from Africa (87%) and Eastern Europe (75%). In contrast, 75% of Brazilians, the majority of South Americans, presented with undetectable viral load, showing a shift from previous data, where migrants from SA had a higher likelihood of late presentation than natives.(1)

Due to its connections with former colonies from Africa, Asia and SA, Portugal has a unique infection profile setting it apart from the rest of Europe. The prevalence of HIV-2 is the highest in Europe, and there is a high diversity of subtypes.(4)

TABLE III – CURRENT ARV CHOICES

ARV backbone		Third ARV component	
Tenofovir (TDF or TAF) with Emtricitabine (FTC)	301 (55.6%)	Dolutegravir (DTG)	182 (33.6%)
Abacavir (ABC) with Lamivudine (3TC)	213 (39.4%)	Darunavir (DRV)	93 (17.2%)
Zidovudine (AZT) with Lamivudine (3TC)	8 (1.5%)	Efavirenz (EFV)	74 (13.7%)

Like in other European studies, K103N was one of the most prevalent mutations found.(5) However, we did not find an increased prevalence of this mutation in SSA. Despite its transmission as a singleton mutation, K103N seriously compromises the use of Efavirenz.(5) This poses a problem where Efavirenz is used as first-line therapy, as in Brazil.

Transmitted drug resistance (TDR) is expected to increase in developing regions with treatment implementation. Our observations highlight the importance of TDR surveillance among immigrants to prevent therapeutic failures.

Amongst non-B subtypes, we identified CRF02_AG as the most common followed by subtype G which consists of a shift, as subtype G was previously documented as the most common.(4)

Hence, our distribution of HIV subtypes reflects our population's origin. Subtype B, the most frequent in our cohort, is also the main subtype found in SA, CRF02_AG and subtype G are more commonly found in West Africa, and subtype C is predominant in SSA. Altogether, migrants from these regions account for 86% of our population.

Our migrant population appear to have a reduced burden of non-AIDS-related morbidity. The lower disease burden has been attributed to the healthy migrant effect and could be enhanced by the return of the sickest individuals to their home country (salmon bias).(1)

Migrant populations are disproportionately affected by HIV-TB coinfection when compared to natives, and our cohort is no different, with TB cases reaching around 30% both at diagnosis and on follow-up. This is in line with the described increase in the number of patients with HIV-TB coinfection in Europe.(6)

Regarding HBV-HIV coinfection we have found a significant prevalence which might be explained by the proportion of migrants originating from Africa, where HBV is endemic affecting up to 5-8% of individuals born in Africa and where regional vaccine coverage is drastically low (11%).(7)

/ Conclusions

Overall, HIV diagnosis is mostly established in the country of origin, particularly Brazilians. Off the new diagnoses the prevalence of Africans stands out. Undeniably, a high percentage of migrants present to healthcare with advanced infection, starting treatment rather later. Migrant population's engagement in follow-up care leads to both therapy adhesion and immuno-virological responses contributing to control the HIV epidemic. Understanding population-specific differences is vital for enhancing and adjusting prevention, follow-up, and treatment strategies.

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