Aggiornamenti da EACS2023 sulle malattie cardiovascolari e sul trattamento con farmaci long-acting nelle persone con HIV.

Update from EACS2023 about cardiovascular diseases and long-acting treatment in people living with HIV.

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Riassunto

L'avvento della terapia antiretrovirale a lunga durata d'azione (LA ART) ha segnato un'avanzata significativa nella gestione dell'HIV, rendendolo una condizione cronica gestibile. Nonostante ciò, le persone viventi con l'HIV (PWH) si confrontano con la gestione delle comorbidità che incidono sulla loro qualità di vita. Il presente manoscritto fornisce un aggiornamento sulla gestione delle comorbidità nell'era della LA ART, riflettendo sui dati e sui progressi esposti durante l'EACS 2023. Tra gli argomenti trattati ci sono gli effetti cardiovascolari del passaggio al dolutegravir, l'efficacia dei modelli di valutazione del rischio cardiovascolare e l'evoluzione delle condizioni cognitive e della fragilità nelle PWH. Studi selezionati hanno mostrato che il cambio al dolutegravir non aumenta il rischio cardiovascolare rispetto agli inibitori della proteasi e che nuovi modelli di valutazione rischio cardiovascolare hanno mostrato maggiore accuratezza rispetto ai modelli più vecchi. Interventi mirati hanno portato a miglioramenti cognitivi, sottolineando il valore di servizi di cura specializzati. Inoltre, è stata evidenziata la prevalenza e la progressione della fragilità nelle persone anziane viventi con l'HIV. Il trattamento con cabotegravir e rilpivirine a lunga azione ha dimostrato alta efficacia e tollerabilità, con tassi bassi di fallimento virologico, sostenendo l'efficacia di tali regimi nel passaggio da studi controllati alla pratica clinica quotidiana. Tuttavia, la gestione degli effetti collaterali e le rare reazioni allergiche richiedono un attento monitoraggio e supporto al paziente, soprattutto nelle fasi iniziali della terapia. La ricerca evidenzia la necessità di modelli di cura che integrino valutazioni geriatriche e affrontino le comorbidità per migliorare il benessere generale delle PWH. Questi dati rafforzano la posizione della LA ART come opzione di trattamento praticabile e preferita, capace di offrire un approccio conveniente e centrato sul paziente per la gestione dell'HIV.

Abstract

The management of HIV has significantly evolved with antiretroviral therapy (ART), especially with the introduction of long-acting (LA) regimens such as cabotegravir and rilpivirine. However, as people living with HIV (PWH) age, comorbidities become a central concern in treatment and management strategies, impacting their quality of life.

An review of the latest research findings from EACS 2023 was conducted, highlighting advancements and current trends in HIV treatment, particularly addressing the interplay between long-term ART, comorbidities, and quality of life. The conference presented studies on the cardiovascular implications of switching to dolutegravir, the effectiveness of different cardiovascular risk assessment models, the cognitive trajectories in PWH following clinical interventions, and the transitions of frailty in an aging HIV-positive population.

The shift to dolutegravir showed no significant difference in cardiovascular risk compared to protease inhibitors.

Discrepancies in cardiovascular risk assessments suggest the need for HIV-specific models.

Cognitive improvements were noted following comprehensive interventions, emphasising the benefits of specialised services. The prevalence of frailty and associated factors like low CD4 counts and Type 2 diabetes were highlighted, calling for geriatric principles in HIV care. In conclusion, LA treatments like cabotegravir and rilpivirine demonstrate high efficacy and tolerability in real-world settings, with low virologic failure rates.

The data underscore the necessity of integrating geriatric care and addressing comorbidities to improve the overall well-being of PWH.

Future strategies should focus on personalised care that aligns with patient preferences and lifestyles, considering the psychological, cognitive, and physical aspects of health.

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Introduction

The management of Human Immunodeficiency Virus (HIV) has undergone significant evolution over the past two decades, transforming HIV from a fatal disease into a manageable chronic condition. This transformation has largely been due to the advent of effective antiretroviral therapy (ART), which has not only improved the longevity of people living with HIV (PWH) but also played a crucial role in public health by reducing the transmission rates of the virus (1–3).

While ART has significantly improved life expectancy, PWH now face the challenge of managing comorbidities that can arise as a result of long-term HIV infection and ART exposure (4). These comorbidities, including cardiovascular diseases, metabolic disorders, bone density abnormalities, renal and liver diseases, and certain cancers, compound the management challenges and can significantly impact the quality of life of PWH (1,5–8). Furthermore, mental health disorders such as depression and anxiety are prevalent among PWH, adding another layer to the complexity of HIV management (9).

Quality of life for PWH is not only influenced by physical health but also by psychosocial factors, including stigma, social support, and mental well-being (10). As the population of PWH ages, the burden of these comorbidities is expected to increase, necessitating a shift in treatment strategies from not only prolonging life but also improving the quality of life (11–13).

In the quest to enhance the quality of life, long-acting (LA) antiretroviral treatments represent a groundbreaking advancement. The combination of cabotegravir and rilpivirine, administered as two-month injections, has emerged as a promising alternative to daily oral regimens, addressing key challenges related to adherence, convenience, and the psychological burden of daily medication (14). This shift has the potential to provide a sense of liberation from the constant reminder of their condition, thereby improving the overall well-being and quality of life for PWH. The advent of such long-acting therapies signifies a major leap forward in HIV treatment paradigms, offering not just clinical benefits but also aligning with the preferences and lifestyles of PWH. It is a reflection of the personalised care approach that is increasingly becoming the focus of HIV management strategies.

This manuscript aims to provide a comprehensive update regarding the management of comorbidities in the era of long-acting antiretroviral therapy, with a special focus on the insights and advancements presented at the latest European Conference on HIV/AIDS (EACS 2023), held in Warsaw from 18 to 21 October. The discussions and findings from this conference shed light on current trends, challenges, and future directions in the treatment of HIV, particularly in how we approach the complex interplay between comorbidities, long-term therapy, and quality of life.

Comorbidities

Several studies have been presented in the past EACS conference. We selected the most interesting papers.

MeP.T3.03 - Change in blood pressure, weight and other cardiovascular disease risk factors after switch to dolutegravir versus staying on a protease inhibitor; post-hoc analysis of the 48-week randomised 2SD trial

Loice Achieng Ombajo et al. presented a study entitled “Change in blood pressure, weight and other cardiovascular disease risk factors after the switch to dolutegravir versus staying on a protease inhibitor; post-hoc analysis of the 48-week randomised 2SD trial” (15). The authors explored the effects of switching to dolutegravir (DTG) on cardiovascular risk factors in HIV-positive individuals. This post-hoc analysis from the Second-line Switch to DTG study (2SD) assessed changes in blood pressure, weight, incident hypertension, and diabetes, along with alterations in the Atherosclerotic Cardiovascular Disease (ASCVD) risk prediction score over 48 weeks. The study involved 795 black participants, the majority of whom were female, and found that while DTG was associated with a higher degree of weight gain, there was no significant difference in the onset of hypertension, variations in blood pressure, or overall cardiovascular risk between the DTG group and those who continued on protease inhibitors. The study concluded that despite the weight gain linked to DTG, the treatment did not increase the risk of hypertension or overall cardiovascular risk compared to protease inhibitors. These findings are particularly relevant for clinicians considering DTG as a switch option for their patients, underscoring the importance of monitoring cardiovascular health

and individual risk factors when making therapeutic decisions in the management of HIV.
The findings of this study add to the growing body of evidence regarding the metabolic and cardiovascular implications of DTG therapy. The lack of significant difference in hypertension incidence and blood pressure changes is reassuring for clinicians considering DTG as a switch option for their patients. However, the associated weight gain with DTG is an important consideration, especially as weight gain can be a risk factor for other health complications over time (16). This analysis highlights the need for individual risk assessment when making treatment decisions, considering the potential for weight gain with DTG and its implications for cardiovascular health. However, The median age of participants in the study was 46 years, signalling a gap in data regarding the older HIV-positive population who may be at a heightened risk for cardiovascular disease. This gap underscores the necessity for further studies that focus specifically on older individuals living with HIV.

eP.B2.012 - Cardiovascular risk assessment with SCORE, SCORE2 and D:A:D in people living with HIV with high prevalence of cardiovascular risk factors

In this interesting study, entitled **"Cardiovascular risk assessment with SCORE, SCORE2 and D:A:D in people living with HIV with high prevalence of cardiovascular risk factors"**, Maria Joao Miguel et al. evaluated the effectiveness of three CVD risk prediction models (the D:A:D (Data Collection on Adverse Events of Anti-HIV Drugs) specific to HIV, the SCORE (Systematic COronary Risk Evaluation) for the general European population, and its updated version, SCORE) (17). The retrospective analysis included data from 42 patients attending a CVD risk clinic tailored for PWH. The median age of this cohort was 60 (IQR 52-66) years. In addition, a significant proportion of the cohort had obesity, hypertension, dyslipidemia, diabetes, and smoking habits, alongside HIV-specific risk factors such as low CD4 nadir, exposure to protease inhibitors, current use of integrase inhibitors, and abacavir.
The findings showed that the risk of CVD was classified as high or very high in a larger proportion of patients when using the SCORE2 and D:A:D models compared to the original SCORE model.
The agreement between the predictions of SCORE2 and D:A:D was greater than that between SCORE and D:A:D. This discrepancy in risk assessment suggests that the older SCORE model might underestimate the CVD risk in PWH, a group already known to have a unique risk profile due to both HIV-specific factors and antiretroviral therapy.
These results highlight the limitations of traditional CVD risk assessment tools in accurately predicting risk in PWH and the potential need for models that better account for the specific risk factors associated with HIV. With the high discordance in predicted CVD risk among the three models, especially in a population with a high burden of traditional and HIV-specific CVD risk factors, there's a clear call for improved CVD risk assessment tools. Such tools would need to integrate the unique aspects of HIV pathology and treatment to provide accurate risk stratification and guide clinicians in optimising preventive strategies for this vulnerable population.

eP.B2.016 - Cognitive trajectories among people with HIV attending a dedicated memory clinic for people living with HIV

Samuel Rhodes et al. Presented a study entitled "Cognitive trajectories among people with HIV attending a dedicated memory clinic for people living with HIV" to explore the management and progression of cognitive impairment (CI) in individuals living with HIV (18). The researchers focused on patient-centered clinical interventions to manage factors traditionally associated with CI, with an aim to maintain or improve cognitive performance over time.
The interventions provided by the clinic were comprehensive, including referrals to mental health services and social support services, reviews and modifications of antiretroviral therapy (cART), assessment of non-ART co-medications, and cognitive remediation. Results indicated an overall trend of improvement in global cognitive performance, with significant gains noted in the domains of delayed memory and executive function. Out of 136 patients, 38 had clinically indicated reassessments, most of whom were male and white, with a median age of 56 years.
Most of these patients had an undetectable viral load at the time of reassessment. The study concludes that in the observed cohort, cognitive performance either remained stable or improved for

the majority of PWH following the patient-centered interventions. This finding highlights the potential benefits of holistic and tailored approaches to managing cognitive impairment in HIV, reinforcing the importance of specialised care services like the Orange clinic.

Reading this study, it is evident that dedicated cognitive care, tailored to the needs of PWH, can play a crucial role in managing and potentially improving cognitive outcomes. The improvement seen in specific cognitive domains suggests that targeted interventions, alongside routine HIV care, may enhance cognitive health. However, it also prompts further research into the specific types of interventions that are most effective and the long-term sustainability of cognitive gains in this population. Multidisciplinary care models that address both the medical and psychosocial aspects of living with HIV are crucial for the comprehensive care of this group.

eP.B2.137 - One-year frailty transitions among persons living with HIV aged 70 years or more on ART

Jannette Achour et al. presented a study entitled "One-year frailty transitions among persons living with HIV aged 70 years or more on ART" about the prevalence and progression of frailty among older PWH (19). The study aimed to assess the frequency and factors associated with frailty transitions over a one-year period in PWH aged over 70 on ART within the French multicenter ANRS EP66 SEPTAVIH study. It included 508 PWH, with 491 analysed after excluding 17 who died before the 12-month mark. Frailty was assessed at baseline and after 12 months, categorising participants as robust, prefrail, or frail. Logistic regression models adjusted for gender, age, education, and period of HIV diagnosis were employed to evaluate factors associated with transitions in frailty states, with multiple imputations used for missing data.

The study findings revealed that over a twelve-month follow-up, 18% of participants experienced a worsening in their frailty level, while 14% showed improvements in their functional capacities.

There was a noted relationship between immunological status, specifically CD4 cell count, and frailty, where a CD4+ T-cell count below 350/mm3 indicated premature aging of the immune system in PWH. Additionally, Type 2 diabetes emerged as a factor associated with the transition from prefrailty to frailty, highlighting metabolic dysfunction and chronic inflammation as contributing to the deterioration of muscle and nerve functions characteristic of frailty. Moreover, men were less likely to recover from frailty to prefrailty than women.

This study highlights the urgent need to integrate geriatric principles into HIV care. Given the complex interplay between HIV, its treatments, and age-related comorbidities, geriatric assessments, including frailty screening, should become routine. Encouraging exercise to combat sarcopenia and potentially reverse prefrailty could be a key component of care for older PWH. These insights underscore the need for a multidisciplinary approach to the care of older adults with HIV, addressing the full spectrum of their healthcare needs.

eP.B2.136 - Neurocognitive impairment, and anxiety symptoms may influence the development of prefrailty/frailty in Japanese people living with HIV aged over 40 years

Hideta Nakamura et al. conducted a study entitled "Neurocognitive impairment, and anxiety symptoms may influence the development of prefrailty/frailty in Japanese people living with HIV aged over 40 years" that addresses the growing concern of frailty among the ageing of PWH in Japan (20). The objective of the study was to determine the prevalence of frailty and identify contributing factors among male Japanese PWH aged 40 or older who have been on ART for at least a year.

In this cross-sectional analysis, participants were assessed for frailty using the Fried frailty assessment and other tools such as the Short Performance Physical Battery (SPPB), Generalized Anxiety Disorder-7 (GAD-7), Patient Health Questionnaire-9 (PHQ-9), and the Japanese version of the Montreal Cognitive Assessment (MOCA-J). The study analysed data from 126 participants and found that 11.9% were frail and 61.9% were prefrail. Weight loss and exhaustion were the most common markers of frailty.

The results showed that several factors were significantly associated with frailty and prefrailty, including lower BMI, current smoking status, the presence of multiple comorbidities, polypharmacy, current CD4 T-cell count, and lower scores on the SPPB, GAD-7, PHQ-9, and MOCA-J. Notably, anxiety (GAD-7 ≥10)

First Author	Country	Number of Patients	Virological Failures	Developed Resistance	Treatment Interruptions	Other Findings
Rubenstein E. (22)	France	72	1 (1.4%)	Not specified	5 (4.2%)	Association of low cabotegravir trough levels with high BMI and absence of oral lead-in.
Deschanvres C. (24)	France	1134	14 (1.1%)	4/6	80 (7.1%)	The virologic failure rate aligns with clinical trials, emergence of resistance mutations in some cases.
Jonsson-Oldenbüttel C. (26)	European	430	1 (0.23%)	Not specified	Not specified	High acceptability and comparable feasibility of the regimen's implementation across different countries.
Mazzitelli M. (27)	Italy	65	1 (1.5%)	0	5 (7.7%)	Decrease in reported side effects from 9.2% to 63.3% at 12-week follow-up, neutral impact on immunological, inflammatory, and metabolic parameters.

Table 1. Characteristics of the four posters presented at EACS2023 about the Long-Acting treatment with Cabotegravir-Rilpivirine.

and cognitive impairment (MOCA-J ≤25) were both found to be significant in multivariate analysis, suggesting they may play a critical role in the onset of frailty. The authors suggest that addressing mental health and cognitive function could be key strategies in reversing frailty status in this demographic. However, they also indicate that further research is needed to clarify the clinical features of frailty in senior Japanese PWH and to develop effective interventions.

About their findigns it is evident that the intersection of mental health, cognitive function, and frailty presents a complex challenge in the care of older PWH. Given the high prevalence of prefrailty and the significant associations with anxiety and cognitive impairment, it becomes crucial to integrate mental health and neurocognitive evaluations into routine clinical care for PWH. Early identification and intervention for anxiety and cognitive impairment may offer potential pathways to mitigate the progression of frailty and enhance the quality of life for older adults living with HIV. (19,21) These results underline the importance of a holistic approach to the health of PWH, taking into account not only the physical but also the psychological and cognitive dimensions of well-being.

In conclusion, reading these studies, it is evident that comorbidities in PWH present a multifaceted challenge requiring comprehensive and tailored approaches. Collectively, these studies illuminate the evolving landscape of HIV care, extending beyond viral suppression to addressing the broader determinants of health and well-being. They advocate for a holistic care strategy that not only treats HIV but also proactively manages the complex array of comorbidities associated with aging in this population. As we look to the future, it is imperative that HIV care models adapt to meet these needs, ensuring that PWH can not only live longer but also with a higher quality of life.

Long-acting treatments

Several studies have been presented at the EACS2023 conference. We selected four of them for this review (**Table 1**).

B1.036 - Low cabotegravir trough concentrations without oral lead-in in patients with HIV-1 infection switching to long-acting cabotegravir and rilpivirine

Rubenstein et al. presented a poster entitled "Low cabotegravir trough concentrations without oral lead-in in patients with HIV-1 infection switching to long-acting cabotegravir and rilpivirine" (22). In this work the authors presented the findings from a study conducted in two French HIV clinics from March 2022 to April 2023. The study aimed to assess the efficacy, safety, and drug trough concentrations of LA cabotegravir (CAB) and rilpivirine (RPV) in patients with virologically-suppressed HIV-1 who were switching to this LA treatment. They included 72 participants, with a median age of 30.4 years, mostly male (84.7%), and a median BMI of 24.2 kg/m^2. The participants were mainly from Europe (65.3%), and the majority were men who have sex with men (MSM), at 70.8%. The median of follow-up was 15 months, and there was one case of virologic failure (1.4%) where the patient had a BMI of 29.4 kg/m^2, did not receive an oral lead-in, and had plasma HIV-1 RNA levels at 2820 copies/mL at one month.

The data indicated that low cabotegravir trough levels were associated with high BMI at one month and the absence of an oral lead-in at both one and three months. No significant risk factor was identified for rilpivirine. The median trough levels of CAB were below the defined low levels at both one and three months, and a significant proportion of participants had CAB levels below the protein-adjusted 90% inhibitory concentration (PAIC90). However, the elimination half-life of oral CAB and RPV is 41 and 45 hours, respectively (23). It is not clear how it could have an impact on the concentration after one and three months. Further study would be necessary in order to understand better this aspect.

MeP.T2.01 - Cabotegravir-rilpivirine long acting: data in real life setting in a large French cohort

Deschanvres et al. Conducted a study entitled "Cabotegravir-Rilpivirine Long-acting: Data in real-life setting in a French Cohort" which includes 23 HIV centers and more than 65 thousand PWH (24).

They included in this study all PWH who were switched to LA CAB+RPV, with the aim to assess the efficacy and tolerability of the treatment and to describe instances of viral failure in a real-life setting. Overall, they included 1134 subjects, of whom 80 (7.1%) discontinued the treatment. The virologic failure occurs in 14 (1.1%) of patients. Among the 6/14 genotypes available at the time of virologic failure, 4 showed the emergence of resistance-associated mutations. The main reasons for discontinuation were adverse events (25, 2.2%), and patients' decision (21, 1.8%). In conclusion, the study demonstrated high efficacy and tolerability of LA CAB+RPV treatment in a real-life setting, confirming those observed in Phase 3 studies. The observed virologic failure rate (1.1%), aligns closely with the rates reported in clinical trials (14,25). The emergence of resistance-associated mutations in the event of treatment failure is a point of concern, underscoring the importance of adherence to treatment and regular monitoring. The fact that most discontinuations occurred within the first three months suggests that the early treatment initiation phase is critical, and patients may require additional support during this period. Although not specified in the quotes provided, the side effects leading to discontinuation would be an important factor to consider in clinical practice, as they impact patients' quality of life and willingness to continue treatment.

eP.A.101 - Efficacy, safety and implementation outcomes of Cabotegravir + Rilpivirine long-acting by country in the Cabotegravir And Rilpivirine Implementation Study in European Locations (CARISEL)

Celia Jonsson-Oldenbüttel et al. presented the results of a Phase 3b implementation study. The study examined PWH across Belgium, France, Germany, Spain, and the Netherlands, which received LA CAB+RPV every two months (26). The CARISEL study was specifically designed to evaluate the perceived acceptability, appropriateness, and feasibility of CAB + RPV LA implementation for staff and study participants. Clinics without prior experience with administering CAB + RPV LA were preferentially selected to ensure a diverse participant group broadly representative of PWH in Europe. The key outcomes demonstrated high effectiveness, with 81-94% of participants maintaining HIV-1 virologic suppression at 12 months and a confirmed virologic failure (CVF) rate of only 0.23%. The study also found CAB + RPV LA to be well-tolerated, increasing participant satisfaction irrespective of the country, and observed high and comparable acceptability, appropriateness, and feasibility of the regimen's implementation across all countries involved.

Of the 430 participants who received CAB + RPV LA, the median age was 44 years, with 25% female at birth and a median BMI of 25 kg/m^2. The study noted that 13 of 18 clinics (72%) had no experience administering CAB + RPV LA at the start of the study. Safety data indicated that drug-related Grade ≥3 adverse events (AEs) occurred in ≤5% of participants across all countries, except for France (11%), which was largely driven by injection site reactions (ISRs). AEs leading to treatment withdrawal ranged from 6–17% across countries. ISRs were the most common AE reported, with most being Grade 1 or 2 in severity and having a median duration of 3–4 days. Discontinuations due to injection-related reasons ranged from 3–15% across countries, with over half occurring due to injection site pain. Participant satisfaction with CAB + RPV LA treatment was high at baseline. It improved across every country, as measured by the HIV Treatment Satisfaction Questionnaire status version (HIVTSQs), with mean increases ranging from +1.60 to +4.21 at month 12. These results are significant as they corroborate the effectiveness of CAB + RPV LA as observed in

controlled clinical trials and demonstrate successful implementation in a real-world setting across different European countries (14,25).
The very low CVF rate supports the reliability of this treatment in diverse populations.
The high satisfaction and acceptability scores suggest that patients find the two-month dosing regimen preferable to daily oral therapy, likely contributing to better adherence and overall treatment success.
The findings underscore the importance of considering patient perspectives and implementation outcomes when introducing new treatment regimens in clinical practice.

eP.A.075 - Real life data on clinical and laboratory outcomes of long-acting cabotegravir and rilpivirine in people with HIV

Mazzitelli et al., in this study entitled "Real life data on clinical and laboratory outcomes of long-acting cabotegravir and rilpivirine in people with HIV", presented the preliminary real-life experiences with LA CAB-RPV (27).
The study included 65 PWH, with 73.8% being male, a median age of 48 years, and 63% being men having sex with men (MSM). At 12 weeks of follow-up, 92.3% retained the LA regimen with undetectable HIV-RNA. Five (7.7%) participants discontinued the regimen due to various reasons, including one for virological failure without resistance mutation development, three for severe pain, and one for allergic reaction. The most common side effects reported were pain and myalgia, but the proportion of participants who did not report any side effects increased significantly from baseline to the last point of follow-up (9.2% to 63.3%).
Immunological, inflammatory, and metabolic parameters measured at baseline and at the 12-week follow-up showed no significant changes, suggesting a neutral effect of the LAIC/R regimen on these parameters.
These results provide valuable insights into the use of LA CAB+RPV in a real-life clinical setting. The decrease in side effects over time is encouraging and could indicate that patients may adapt to the treatment. However, the occurrence of severe pain and allergic reactions, leading to discontinuation for some, underscores the need for careful patient monitoring and management of side effects.
The fact that a significant proportion of patients chose this treatment themselves suggests a preference for LA regimens, possibly due to the convenience and reduced pill burden compared to daily oral therapies.
The neutral impact on immunological, inflammatory, and metabolic parameters is reassuring and supports the long-term sustainability of this treatment option.
In conclusion, the four studies presented provide a comprehensive overview of the real-world application of long-acting cabotegravir and rilpivirine (LA CAB+RPV) in people with HIV.
These studies affirm the effectiveness and tolerability of LA CAB+RPV, mirroring the positive outcomes seen in clinical trials.
A notable finding across these studies is the sustained virologic suppression achieved by most participants, with exceptionally low virologic failure rates.
This suggests that the benefits of long-acting regimens translate effectively from controlled trial settings to everyday clinical practice.
Despite the overall success of LA CAB+RPV, challenges such as the management of side effects, particularly injection site reactions, and the rare instances of severe pain and allergic reactions leading to treatment discontinuation, highlight the need for vigilant monitoring and patient support, especially during the initial stages of therapy.
Patients' preferences underscore the importance of personalised care for this treatment, indicating the value placed on reduced dosing frequency and the potential for increased adherence.
However, further research is needed, particularly in understanding the pharmacokinetics of long-acting formulations and the factors influencing drug trough concentrations over time.
Overall, these real-life data reinforce the position of LA CAB+RPV as a viable and preferred treatment option for PWH, capable of offering a convenient and patient-centred approach to managing HIV. With the growing emphasis on patient satisfaction and treatment personalisation, LA CAB+RPV stands as a testament to the progress in HIV therapy, signifying a shift towards regimens that accommodate the lifestyles and preferences of those they are designed to help. ■

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