ViiV Healthcare study shows new long-acting HIV regimen Cabenuva (cabotegravir/rilpivirine) can be successfully implemented in broad range of US healthcare practices, even during COVID-19

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For media and investors only

- Healthcare teams from a wide variety of US HIV clinics reported that optimal implementation of long-acting cabotegravir and rilpivirine dosed monthly was achieved within 1 – 3 months, and implementation was acceptable, appropriate and feasible

- Majority of patients (74%) in the study reported few barriers to monthly injection appointments even during COVID-19

ViiV Healthcare, the global specialist HIV company majority owned by GlaxoSmithKline plc (“GSK”), with Pfizer Inc. and Shionogi Limited as shareholders, today presented positive findings from the CUSTOMIZE (Cabotegravir plus Rilpivirine long acting in the US To Optimize and Measure Implementation and Experience) trial. The study, which included people living with HIV and healthcare teams and overlapped with the COVID-19 pandemic, demonstrated that Cabenuva (a co-pack with two injectable medicines including ViiV Healthcare’s cabotegravir and Janssen’s rilpivirine) can be successfully implemented across a range of healthcare settings in the US. The 12-month findings were presented at the International AIDS Society Conference 2021(IAS 2021) being held virtually 18-21 July.

CUSTOMIZE was initiated in 2019 to identify successful methods of integrating the long-acting regimen of cabotegravir and rilpivirine

(dosed monthly) for the treatment of HIV-1 after product availability into clinical practices in the US, in a variety of clinic types., This study included a variety of clinic types from private practices, university clinics and federally qualified health centres, to integrated health care systems. Regardless of clinic types, the majority of healthcare staff (96%, n=22/23) either agreed, or completely agreed, that the long-acting regimen was feasible to implement in their clinic, and most (78%, n=18/23) felt that optimal implementation was achieved within 1-3 months, with only minor adjustments to clinic logistics required.

The people living with HIV who participated in the trial agreed that the long-acting regimen was acceptable and appropriate to implement, with the majority (97%, n=99/102) expressing interest in continuing to receive the long-acting regimen over daily oral therapy after the study ended at Month 12. In addition to assessing the implementation of cabotegravir and rilpivirine long acting into US healthcare practices, the CUSTOMIZE trial also assessed the safety and efficacy of the regimen. Over the course of the study, findings showed that 100% of participants with available viral load results maintained viral suppression (

Maggie Czarnogorski, MD, MPH, Head of Innovation and Implementation Science at ViiV Healthcare said,

> Administering monthly injections for the treatment of HIV is a new experience for healthcare providers and some anticipated that there would be barriers to implementation. Over the course of a year, even with the added challenges of COVID-19, the barriers that providers and patients thought they would face turned out not to be as concerning as originally thought. What's more, the risk of failure with this therapy has always been low, and this is reflected in the data showing that all the people living with HIV who participated in the trial maintained viral suppression, and many found that monthly visits with their healthcare professional were valuable and had a positive impact on their overall HIV care.

Perspectives from people living with HIV from the CUSTOMIZE trial

Findings from people living with HIV who participated in the CUSTOMIZE trial showed that at month 12:

- 74% reported that nothing interfered with their ability to receive the

monthly injection

- 87% found monthly clinic visits very or extremely acceptable,

- 92% reported that they preferred the long-acting regimen over their previous daily oral regimen

- 97% reported they would continue with the long-acting regimen of cabotegravir and rilpivirine after the study

- 93% found the time spent in clinic to receive the injections to be very or extremely acceptable

An analysis on the impact of the COVID-19 pandemic on implementation outcomes in CUSTOMIZE were also evaluated. Acceptability and positive attitudes about monthly healthcare provider administered injections remained high for patients, even for those directly impacted by COVID-19:

- Monthly clinic visits were extremely or very acceptable (95% COVID-impacted vs. 86% non-COVID impacted)

- Participants felt positive about receiving the long-acting regimen (100% COVID-impacted vs. 98% non-COVID impacted)

- Participants preferred the long-acting regimen over daily oral tablets (95% COVID impacted vs. 92% non-COVID impacted)

COVID-19 impacted participants were defined as those with missed or rescheduled injection visit, having to quarantine, clinic closure, etc.

Dr Harmony P. Garges, Chief Medical Officer at ViiV Healthcare, said “At ViiV Healthcare, we’re committed to developing a diverse range of innovative approaches to treating HIV, as we know that no single medicine will work for all people living with HIV due to each person’s unique needs and experiences. The CUSTOMIZE trial has allowed us to test the acceptability and feasibility of the first long-acting HIV treatment regimen in diverse healthcare settings, with results showing that monthly cabotegravir and rilpivirine was effectively implemented, even throughout the COVID-19 pandemic.

Additionally, this regimen remained highly acceptable both to healthcare providers and people living with HIV and was strongly preferred by study participants to daily oral therapy.”

A corresponding trial in Europe, CARISEL, is examining the implementation of long-acting cabotegravir and rilpivirine, dosed every 2-months in certain European healthcare settings. Initial results from the CARISEL study are expected later this year.

The once monthly long-acting regimen of cabotegravir and rilpivirine was authorised by the US Food and Drug Administration (FDA) in January 2021 under the brand name Cabenuva. Marketing Authorisations for the long-acting regimen of cabotegravir and rilpivirine were granted by the European Medicines Agency in December 2020.

ViiV Healthcare's cabotegravir in combination with Janssen Sciences Ireland Unlimited Company's rilpivirine was co-developed as part of a collaboration with Janssen, and builds on ViiV Healthcare's industry-leading portfolio that is centered on delivering innovative medicines for the HIV community.

About CUSTOMIZE (NCT04001803),,

CUSTOMIZE is a single-arm, multicentre, one-year evaluation of the effect of an implementation strategy on the degree of acceptability, appropriateness, feasibility, fidelity and sustainability of clinic practices to deliver the monthly, long-acting regimen of cabotegravir and rilpivirine to appropriate people living with HIV. The study, which involved 115 people living with HIV and 24 healthcare providers, evaluated both qualitative and quantitative measures across a range of clinic types, including university hospitals as well as private and public clinics, with varied geographic and demographic representation.

A suite of educational items, training aids, treatment and resource planning tools, appointment reminders and patient-directed support items were made available as part of this study. Staff study participants from each site (physician/primary care practitioner, nurse/medication administration personnel, administrator/clinic manager) took part in the study through participation in surveys and interviews. Sustainment of implementation strategies was assessed via surveys and semi-structured interviews of staff study participants as well as patient study participants. The primary endpoint was change from baseline to the injection site visit at Month 12 in site survey responses for acceptability, appropriateness and feasibility.

About Cabenuva (cabotegravir and rilpivirine)

Cabenuva is indicated as a complete regimen for the treatment of HIV-1 infection in adults who are virologically suppressed (HIV-1 RNA less than 50 copies per milliliter [mL]) on a stable regimen, with no history of treatment failure, and with no known or suspected resistance to either cabotegravir or rilpivirine. Cabenuva is administered as two intramuscular injections (cabotegravir and rilpivirine) in the buttocks during the same visit at a specialist clinic by a healthcare professional.

The complete regimen combines the integrase strand transfer inhibitor (INSTI) cabotegravir, developed by ViiV Healthcare, with rilpivirine, a non-nucleoside reverse transcriptase inhibitor (NNRTI) developed by Janssen Sciences Ireland UC, one of the Janssen Pharmaceutical Companies of Johnson & Johnson.

INSTIs, like cabotegravir, inhibit HIV replication by preventing the viral DNA from integrating into the genetic material of human immune cells (T-cells). This step is essential in the HIV replication cycle and is also responsible for establishing chronic infection. Rilpivirine is an NNRTI that works by interfering with an enzyme called reverse transcriptase, which in turn stops the virus from multiplying.

Important Safety Information for Cabenuva (cabotegravir 200 mg/mL; rilpivirine 300 mg/mL) extended-release injectable suspensions

Cabenuva is indicated as a complete regimen for the treatment of human immunodeficiency virus type 1 (HIV-1) infection in adults to replace the current antiretroviral regimen in those who are virologically suppressed (HIV-1 RNA less than 50 copies per mL) on a stable antiretroviral regimen with no history of treatment failure and with no known or suspected resistance to either cabotegravir or rilpivirine.

- Do not use Cabenuva in patients with previous hypersensitivity reaction to cabotegravir or rilpivirine.

- Do not use Cabenuva in patients receiving carbamazepine, oxcarbazepine, phenobarbital, phenytoin, rifabutin, rifampin, rifapentine, systemic dexamethasone (>1 dose), and St John’s wort.

Hypersensitivity Reactions:

- Hypersensitivity reactions, including cases of Drug Reaction with Eosinophilia and Systemic Symptoms (DRESS), have been reported during postmarketing experience with rilpivirine-containing regimens. While some skin reactions were accompanied by constitutional symptoms such as fever, other skin reactions were associated with organ dysfunctions, including elevations in hepatic serum biochemistries.

- Serious or severe hypersensitivity reactions have been reported in association with other integrase inhibitors and could occur with Cabenuva.

- Discontinue Cabenuva immediately if signs or symptoms of hypersensitivity reactions develop. Clinical status, including liver transaminases, should be monitored and appropriate therapy initiated. Prescribe the oral lead-in prior to administration of Cabenuva to help identify patients who may be at risk of a hypersensitivity reaction.

- Serious post-injection reactions (reported in less than 1% of subjects) were reported within minutes after the injection of rilpivirine, including dyspnea, agitation, abdominal cramping, flushing, sweating, oral numbness, and changes in blood pressure. These events may have been associated with inadvertent (partial) intravenous administration and began to resolve within a few minutes after the injection.

- Carefully follow the Instructions for Use when preparing and administering Cabenuva to avoid accidental intravenous administration. Observe patients briefly (approximately 10 minutes) after the injection. If a post-injection reaction occurs, monitor and treat as clinically indicated.

- Hepatotoxicity has been reported in patients receiving cabotegravir or rilpivirine with or without known pre-existing hepatic disease or identifiable risk factors.

- Patients with underlying liver disease or marked elevations in transaminases prior to treatment may be at increased risk for worsening or development of transaminase elevations.

- Monitoring of liver chemistries is recommended and treatment with Cabenuva should be discontinued if hepatotoxicity is suspected.

- Depressive disorders (including depressed mood, depression, major depression, mood altered, mood swings, dysphoria, negative thoughts, suicidal ideation or attempt) have been reported with Cabenuva or the individual products.

- Promptly evaluate patients with depressive symptoms.

Risk of Adverse Reactions or Loss of Virologic Response Due to Drug Interactions:

- The concomitant use of Cabenuva and other drugs may result in known or potentially significant drug interactions (see Contraindications and Drug Interactions).

- Rilpivirine doses 3 and 12 times higher than the recommended oral dosage can prolong the QTc interval. Cabenuva should be used with caution in combination with drugs with a known risk of Torsade de Pointes.

Long-Acting Properties and Potential Associated Risks with Cabenuva:

- Residual concentrations of cabotegravir and rilpivirine may remain in the systemic circulation of patients for prolonged periods (up to 12 months or longer). Select appropriate patients who agree to the required monthly injection dosing schedule because non-adherence to monthly injections or missed doses could lead to loss of virologic response and development of resistance.

- To minimize the potential risk of developing viral resistance, it is essential to initiate an alternative, fully suppressive antiretroviral regimen no later than 1 month after the final injection doses of Cabenuva. If virologic failure is suspected, switch the patient to an alternative regimen as soon as possible.

The most common adverse reactions (incidence ≥2%, all grades) with Cabenuva were injection site reactions, pyrexia, fatigue, headache, musculoskeletal pain, nausea, sleep disorders, dizziness, and rash.

- Refer to the applicable full Prescribing Information for important drug interactions with Cabenuva, Vocabria, or rilpivirine.

- Because Cabenuva is a complete regimen, coadministration with

other antiretroviral medications for the treatment of HIV-1 infection is not recommended.

- Drugs that are strong inducers of UGT1A1 or 1A9 are expected to decrease the plasma concentrations of cabotegravir. Drugs that induce or inhibit CYP3A may affect the plasma concentrations of rilpivirine.

- Cabenuva should be used with caution in combination with drugs with a known risk of Torsade de Pointes.

USE IN SPECIFIC POPULATIONS

- Pregnancy: There are insufficient human data on the use of Cabenuva during pregnancy to adequately assess a drug-associated risk for birth defects and miscarriage. Discuss the benefit-risk of using Cabenuva during pregnancy and conception and consider that cabotegravir and rilpivirine are detected in systemic circulation for up to 12 months or longer after discontinuing injections of Cabenuva. An Antiretroviral Pregnancy Registry has been established.

- Lactation:The CDC recommends that HIV 1–infected mothers in the United States not breastfeed their infants to avoid risking postnatal transmission of HIV-1 infection. Breastfeeding is also not recommended due to the potential for developing viral resistance in HIV-positive infants, adverse reactions in a breastfed infant, and detectable cabotegravir and rilpivirine concentrations in systemic circulation for up to 12 months or longer after discontinuing injections of Cabenuva.

Please see full Prescribing Information.

Important Safety Information for Vocabria

Vocabria is a human immunodeficiency virus type-1 (HIV-1) integrase strand transfer inhibitor (INSTI) indicated in combination with rilpivirine for short-term treatment of HIV-1 infection in adults who are virologically suppressed (HIV-1 RNA less than 50 copies/mL) on a stable antiretroviral regimen with no history of treatment failure and with no known or suspected resistance to either cabotegravir or rilpivirine, for use as:

- oral lead-in to assess the tolerability of cabotegravir prior to

administration of Cabenuva (cabotegravir; rilpivirine) extended-release injectable suspensions.

- oral therapy for patients who will miss planned injection dosing with Cabenuva.

- Previous hypersensitivity reaction to cabotegravir.

- Coadministration with carbamazepine, oxcarbazepine, phenobarbital, phenytoin, rifampin, and rifapentine.

- Hypersensitivity reactions have been reported in association with other integrase inhibitors. Discontinue Vocabria immediately if signs or symptoms of hypersensitivity reactions develop.

- Hepatotoxicity has been reported in patients receiving cabotegravir. Monitoring of liver chemistries is recommended. Discontinue Vocabria if hepatotoxicity is suspected.

- Depressive disorders have been reported with Vocabria. Prompt evaluation is recommended for depressive symptoms.

- Risks Associated with Combination Treatment: Review the prescribing information for rilpivirine prior to initiation of Vocabria in combination with rilpivirine.

The most common adverse reactions (Grades 1 to 4) observed in at least 3 subjects receiving Vocabria were headache, nausea, abnormal dreams, anxiety, and insomnia.

- Refer to the full prescribing information for important drug interactions with Vocabria.

- Because Vocabria in combination with rilpivirine is a complete regimen, coadministration with other antiretroviral medications for the treatment of HIV-1 infection is not recommended.

- Drugs that induce uridine diphosphate glucuronosyltransferase (UGT)1A1 may decrease the plasma concentrations of cabotegravir.

USE IN SPECIFIC POPULATIONS

Lactation: Breastfeeding is not recommended due to the potential for HIV-1 transmission.

Please see full Prescribing Information.

ViiV Healthcare is a global specialist HIV company established in November 2009 by GlaxoSmithKline (LSE: GSK) and Pfizer (NYSE: PFE) dedicated to delivering advances in treatment and care for people living with HIV and for people who are at risk of becoming infected with HIV. Shionogi joined in October 2012. The company's aim is to take a deeper and broader interest in HIV/AIDS than any company has done before and take a new approach to deliver effective and innovative medicines for HIV treatment and prevention, as well as support communities affected by HIV. For more information on the company, its management, portfolio, pipeline and commitment, please visit www.viivhealthcare.com.

GSK is a science-led global healthcare company. For further information please visit www.gsk.com/about-us.

Cautionary statement regarding forward-looking statements

GSK cautions investors that any forward-looking statements or projections made by GSK, including those made in this announcement, are subject to risks and uncertainties that may cause actual results to differ materially from those projected. Such factors include, but are not limited to, those described in the Company's Annual Report on Form 20-F for 2020, GSK's Q1 Results and any impacts of the COVID-19 pandemic.

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