This document provides a short summary of this study for a general audience. You can find more information in the scientific summaries of the study. Links to those summaries are provided at the end of this document.

Study names

Short Title: A study to compare a two-medicine regimen with a three-medicine regimen in patients with HIV-1 infection.

Full Scientific Title: A phase III, randomised, double-blind, multicentre, parallel group, non-inferiority study evaluating the efficacy, safety, and tolerability of dolutegravir plus lamivudine compared to dolutegravir plus tenofovir/emtricitabine in HIV-1-infected treatment-naive adults.

ViiV Healthcare Study Number: 205543

Who sponsored this study?

ViiV Healthcare
GSK Clinical Support Help Desk
Website: clinicalsupporthd.gsk.com/contact.html
Email: GSKClinicalSupportHD@gsk.com

General information about the clinical study

When was this study done?

The study started in July 2016. Enrolment is closed, but the study was ongoing when this summary was finalised.

What was the main objective of this study?

Human immunodeficiency virus type 1 (HIV-1) damages the body's defence system (immune system). It weakens the ability to fight infections and increases the risk of developing diseases. Doctors monitor the amount of HIV-1 in the body (viral load) by measuring the HIV-1 RNA levels in blood.

Antiretroviral medicines treat HIV-1 infection by controlling the viral load. For this study, antiretroviral medicines worked well if the patient's viral load was reduced to and remained less than 50 copies per millilitre (c/mL).

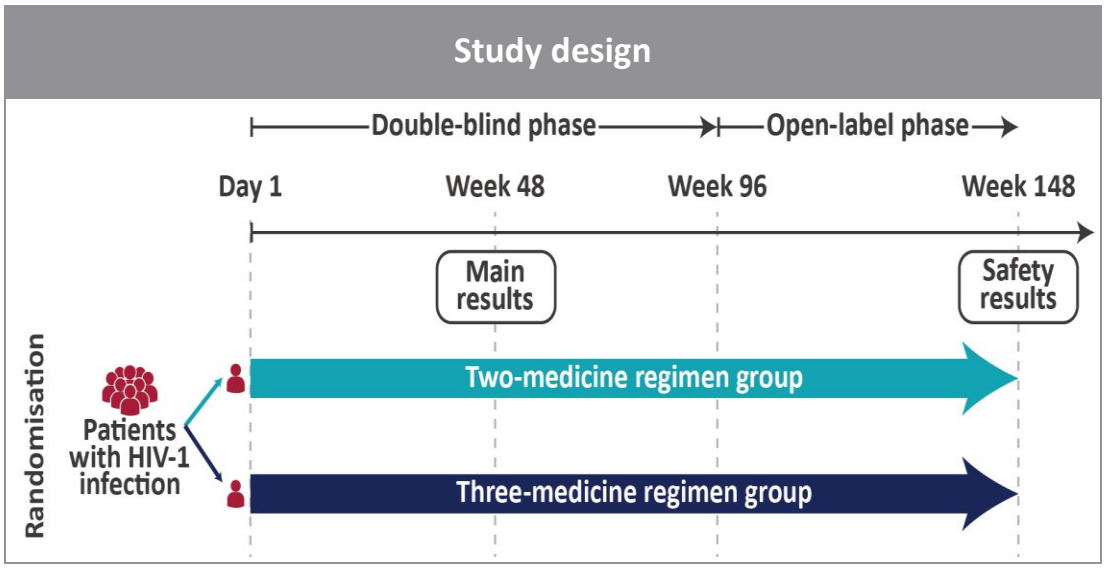
In this study, researchers wanted to compare a new two-medicine regimen with a standard three-medicine regimen in patients with HIV-1 infection. They also assessed the safety of these medicines.

Which medicines were studied?

On Day 1, patients were placed in one of the following two treatment groups by chance (randomisation).

- Two-medicine regimen group: Patients received dolutegravir (DTG) and lamivudine (3TC) once daily.
- Three-medicine regimen group: Patients received DTG and a combination of tenofovir disoproxil fumarate (TDF) and emtricitabine (FTC) once daily.

The 148-week treatment period was divided into two phases, as shown in the figure below. During the first 96 weeks, neither the patients nor the study doctors knew who was receiving which treatment. This is called a double-blind phase. After Week 96, the study doctor and patients knew which treatment they received. This is called an open-label phase.



After Week 148, patients in the two-medicine regimen group could choose to continue receiving DTG and 3TC in the study until they are approved for HIV treatment in their country.

Which patients were included in this study?

Studies have a list of requirements for patients who can enrol (inclusion criteria) and those who can't (exclusion criteria). For this study, the main inclusion and exclusion criteria are listed below.

Men and women with HIV-1 infection were included in the study if they:

- Were at least 18 years old.
- Had never taken antiretroviral medicines for HIV-1 infection.
- Had viral load between 1,000 and 500,000 c/mL before starting the study.

Men and women were excluded from the study if they had:

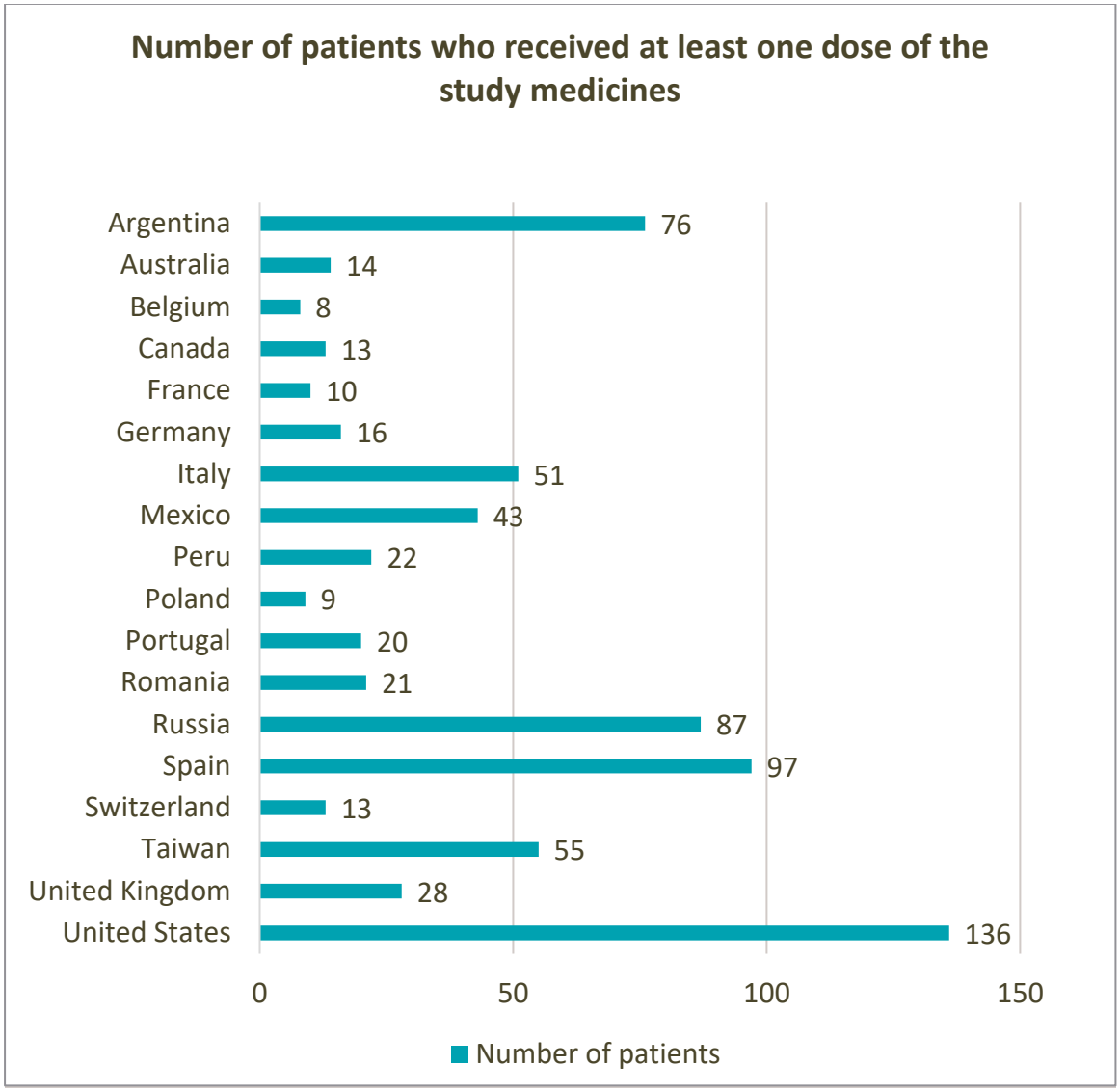
- Hepatitis B virus infection.
- Unstable liver disease.
- Certain active cancers.
- Known resistance to DTG, 3TC, or other medicines used to treat HIV infection.
- Any other disease(s) or had taken any medicine(s) before starting the study that the study doctor thought would affect the results of the study.

Overall, 719 patients received at least one dose of the study medicines. The study included 619 (86%) men and 100 (14%) women. The average age was 35 years. The youngest patient was 18 years old and the oldest patient was 72 years old.

For more detailed information about the patients included in this study, see the scientific results summaries (links to those summaries are provided at the end of this document).

Where was this study done?

Study sites were in 18 countries.

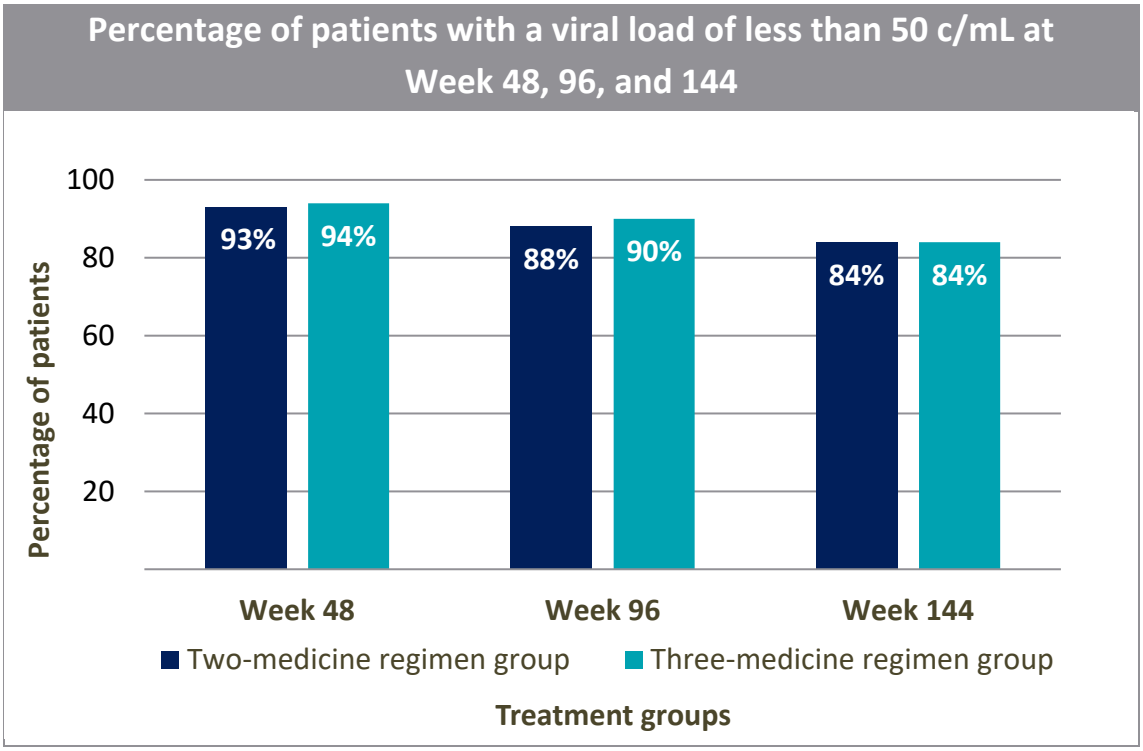


What were the main results of the study?

Study doctors collected blood samples and measured patients' viral load on Day 1 and during the study.

The main results of the study compared the percentage of patients with a viral load of less than 50 c/mL at Week 48 in both the treatment groups. The study also compared the percentage of patients with a viral load of less than 50 c/mL at Week 96 and Week 144 in both the treatment groups.

Results are shown in the figure below.



The percentage of patients with a viral load of less than 50 c/mL was similar between the treatment groups at Week 48, 96, and 144.

More information about the study results is available in the scientific results summaries (links to those summaries are provided at the end of this document).

What were the side effects?

Unwanted medical events (adverse events) can happen to people when they receive a medicine. Study doctors record these events. A summary of these events can be found in the scientific results summaries (links to those summaries are provided at the end of this document).

If the study doctor thinks that the event was caused by the study medicine, they record this as a possible side effect (adverse reaction).

In this summary, side effects refer to those events that the study doctor thinks may have been caused by the study medicines. The side effects in this summary may be different to those in the Informed Consent for this study or other documents related to the study medicines.

Serious side effects were reported by two patients (less than 1%) in the two-medicine regimen group and four patients (1%) in the three-medicine regimen group. The table below shows the serious side effects reported by patients during the study.

Number of patients (percent) with serious side effects		
	Two-medicine regimen group 360 patients	**Three-medicine regimen group 359 patients**
Toxic liver disease	1 (less than 1%)	0
Suicidal thoughts	1 (less than 1%)	2 (less than 1%)
Suicide attempt	0	1 (less than 1%)
Gallstones	0	1 (less than 1%)

Non-serious side effects were reported by 68 patients (19%) in the two-medicine regimen group and 89 patients (25%) in the three-medicine regimen group. The table below shows the non-serious side effects that were reported by 2% or more of patients in either treatment group.

Number of patients (percent) with non-serious side effects reported by 2% or more of patients in either treatment group		
	Two-medicine regimen group 360 patients	**Three-medicine regimen group 359 patients**
Diarrhoea	8 (2%)	7 (2%)
Headache	7 (2%)	11 (3%)
Sleeplessness	7 (2%)	7 (2%)
Nausea	6 (2%)	17 (5%)
Anxiety	6 (2%)	5 (1%)
Dizziness	3 (less than 1%)	8 (2%)

How has this study helped patients and researchers?

The study showed that patients with HIV-1 infection in the two-medicine regimen group had a similar response in reducing and maintaining a viral load of less than 50 c/mL compared with patients in the three-medicine regimen group. The side effects reported in this study were as expected. More patients reported non-serious side effects in the three-medicine regimen group compared with the two-medicine regimen group.

Are there plans for further studies?

Other studies of DTG and 3TC in patients with HIV-1 infection have been conducted and some are ongoing or planned.

Where can I find more information about this study?

Clinical studies have unique study numbers that are included in publications and other information about the study. The unique study numbers associated with this study are shown below with internet links to scientific summaries.

The scientific summaries include more details about the requirements for study enrolment, the study visit schedule, results from other endpoints, and more detailed information about adverse events. When the study is complete, results will be available in the scientific summaries.

Organisation and Website	Study Number
European Medicines Agency (www.clinicaltrialsregister.eu)	2016-000459-28[1]
United States National Institutes of Health (NIH) (www.clinicaltrials.gov)	NCT02831764[2]

Your doctor can help you understand more about this study and the results. Speak to your doctor about the treatment options available in your country. You should not make changes to your care based on the results of this or any single study. Keep taking your current treatment unless instructed by your doctor.

[1] https://www.clinicaltrialsregister.eu/ctr-search/search?query=2016-000459-28
[2] https://clinicaltrials.gov/ct2/show/NCT02831764?term=NCT02831764&rank=1

We would like to thank the patients who contributed to this study. The results of this study will help answer scientific questions about treating patients with HIV-1 infection.

The content for this document was finalised by ViiV Healthcare on 1 March 2021. The information in this summary does not include additional information available after this date.