This document provides a short summary of this study for a general audience. You can find more information in the scientific summary of the study. A link to the summary is provided at the end of this document.

Study names

Short Title: A study to assess how well tenofovir disoproxil fumarate works in Chinese participants who had chronic hepatitis B leading to liver damage but no serious symptoms.

Full Scientific Title: A prospective, multi-centre, cohort study to evaluate the efficacy and safety of tenofovir disoproxil fumarate therapy in Chinese chronic hepatitis B subjects with advanced fibrosis and compensated cirrhosis.

Study Number: 201213

Who sponsored this study?

GlaxoSmithKline (GSK)
GSK Clinical Support Help Desk
Website: clinicalsupporthd.gsk.com/contact.html
Email: GSKClinicalSupportHD@gsk.com

General information about the clinical study

When and where was this study done?

The study started in March 2015 and ended in December 2020. All study sites were in China.

What was the main reason for this study?

Chronic hepatitis B is a long-term infection of the liver caused by the hepatitis B virus (HBV). It can lead to serious liver diseases such as formation of scars on the liver (cirrhosis), liver failure, or liver cancer. Currently, there is no cure for chronic hepatitis B. The goal of any treatment for chronic hepatitis B is to manage the HBV infection by fighting the virus and slowing its ability to damage the liver.

Tenofovir disoproxil fumarate (TDF) is a medicine that is used to treat chronic hepatitis B. It works by controlling the amount of virus in the body. Doctors monitor the amount of HBV in the body by measuring the levels of viral genetic material in blood (HBV DNA levels). They also measure the levels of HBsAg and HBeAg in blood. These are proteins found on the HBV.

Chinese participants who had chronic hepatitis B leading to liver damage but no serious symptoms took part in this study. Researchers wanted to see if long-term treatment with TDF slowed the worsening of liver disease due to HBV infection (disease progression) and prevented liver cancer in these participants. Researchers also studied the safety of TDF.

For this study, disease progression was indicated by either of the following:

- Worsening of liver function as assessed by an increase of two or more points on a scoring scale.
- A life-threatening response to an infection of the abnormal fluid built-up in the abdomen.
- Decreased rate of removal of waste substance (creatinine) from blood by the kidney.
- Enlarged blood vessels in the lining of the stomach or food pipe that can cause bleeding.
- Liver cancer.
- Death due to a liver disease.

Which medicine was studied?

Participants took TDF (300 milligrams) tablet once daily for 240 weeks. The participant and the study doctor knew which treatment the participant received.

Which participants took part in this study?

Studies have a list of requirements for participants 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 chronic hepatitis B were included in the study if they:

- Were 18 to 60 years old.
- Had presence of HBsAg protein in blood at the start of the study and for at least six months before starting the study.
- Had the required HBV DNA levels based on the presence or absence of HBeAg in the blood at the start of the study.

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

- A liver transplant or planned to have one.
- Cancer or signs of disease in the liver.
- An infection with HIV or any of the other hepatitis virus (A, C, D, or E).
- More than ten times the normal levels of a liver protein in the blood (alanine aminotransferase) before starting the study.
- Alcohol or drug problem currently or in the past.
- Received TDF or similar medicines before starting the study.
- Any other disease(s), abnormal blood test results, or taken any treatment(s) that the study doctor thought would affect the results of the study.

Overall, 195 participants received at least one dose of the study medicine. The study included 148 men (76%) and 47 women (24%). The average age was 42 years. The youngest participant was 21 years old and the oldest participant was 60 years old.

For more detailed information about the participants included in this study, see the scientific results summary (a link to the summary is provided at the end of this document).

What were the main results of the study?

Disease progression

Study doctors recorded the number of participants who had disease progression during the 240-week study period. Results are shown in the table below.

Number of participants (percent) who had disease progression	
	TDF 195 participants
Number of participants (percent)	14 (7%)

Liver cancer

During the study, study doctors recorded the number of participants who had newly detected liver cancer between Week 24 and Week 240. They had also recorded the number of participants who had newly detected liver cancer up to Week 24. Results are shown in the table below.

Number of participants (percent) who had newly detected liver cancer	
	TDF 195 participants
Between Week 24 and Week 240	11 (6%)
Up to Week 24	2 (1%)

More information about the study results is available in the scientific results summary (a link to the summary is 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 summary (a link to the summary is 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 medicine. The side effects in this summary may be different to those in the Informed Consent or other documents related to the study medicine.

No serious side effects were reported in this study.

Non-serious side effects were reported by 32 participants (16%). The table below shows the number of participants (percent) with non-serious side effects that were reported by three percent or more of participants in this study.

Number of participants (percent) with non-serious side effects reported by three percent or more of participants	
	TDF **195 participants**
Lower than normal levels of phosphorus in the blood	14 (7%)
Lower than normal levels of calcium in the blood	7 (4%)
Higher than normal levels of protein called creatine phosphokinase in the blood	5 (3%)

How has this study helped participants and researchers?

Researchers concluded that long-term treatment with TDF slowed the disease progression and prevented liver cancer in Chinese participants who had chronic hepatitis B leading to liver damage but no serious symptoms. The side effects reported in the study were non-serious.

Are there plans for further studies?

Other studies on TDF in participants with chronic hepatitis B have been conducted and some are ongoing. No further studies are planned at this time.

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 number associated with this study is shown below with an internet link to the scientific summary.

The scientific summary includes more details about the requirements for study enrolment, the study visit schedule, results from other endpoints, and more detailed information about adverse events.

Organisation and Website	Study Number
United States National Institutes of Health (NIH) (www.clinicaltrials.gov)	NCT02224456[1]

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.

We would like to thank the participants who contributed to this study. The results of this study will help answer scientific questions about treating patients with chronic hepatitis B.

The content for this document was finalised by GSK on 04 February 2022. The information in this summary does not include additional information available after this date.

[1] https://clinicaltrials.gov/ct2/show/NCT02224456