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New England Journal of Medicine Publishes Data From Two Phase 3 Studies of INCIVEK™ (telaprevir) in Hepatitis C

-INCIVEK was recently approved by the FDA and is now available for people with the most common form of chronic hepatitis C who are new to treatment and those who were treated before but not cured-

CAMBRIDGE, Mass.--(BUSINESS WIRE)-- Vertex Pharmaceuticals Incorporated (Nasdaq: VRTX) today announced that the *New England Journal of Medicine* (NEJM) published data from two Phase 3 studies of INCIVEK™ (telaprevir) tablets, which showed that INCIVEK (in-SEE-veck) combination therapy significantly improved rates of sustained viral response (SVR, or viral cure) in a broad group of people with genotype 1 chronic hepatitis C who were new to treatment and those who were treated previously but not cured (relapsers, partial responders and null responders). Data from these studies, which included nearly 2,000 people, are published in the June 23, 2011 issue of NEJM.

INCIVEK (750 mg) is given as two 375-mg tablets three times daily for 12 weeks. It is packaged in weekly boxes that include daily blister strips to help patients keep track of their doses. (Photo: Business Wire)

In the ADVANCE study, INCIVEK combination therapy significantly improved viral cure rates in people who were new to treatment compared to those who received pegylated-interferon and ribavirin alone, two other medicines approved for hepatitis C. The majority of people who received INCIVEK combination therapy in this study were able to complete treatment in 24 weeks — half the time needed if they were to have taken pegylated-interferon and ribavirin alone. In the REALIZE study, which included people who were treated previously but not cured, viral cure rates were three-to-six-times higher with INCIVEK combination therapy compared to treatment with pegylated-interferon and ribavirin alone. Rash and anemia were the most common side effects reported with INCIVEK, which led to treatment discontinuation in about 1 percent of people in clinical studies.

"In the ADVANCE study, 79 percent of people with hepatitis C who had not been treated previously achieved a viral cure with INCIVEK combination therapy and the majority were able to cut treatment time in half," said Ira Jacobson, M.D., Chief of the Division of Gastroenterology and Hepatology, Weill Cornell Medical College, lead author and principal investigator for the ADVANCE study. "The results from this landmark study represent a paradigm shift in the treatment of hepatitis C and give us a new reason to encourage people to get tested and treated to potentially avoid the life-threatening consequences that can be associated with the disease."

"Many people with chronic hepatitis C who were treated previously but not cured have been waiting for new medicines, like INCIVEK, that offer a better chance to clear the virus," said Stefan Zeuzem, M.D., Professor of Medicine and Chief of the Department of Medicine at the JW Goethe University Hospital, Frankfurt, Germany, lead author and principal investigator for the REALIZE study. "In the REALIZE study, 86 percent of people who relapsed after being treated previously achieved a viral cure with INCIVEK combination therapy."

"The publication of these groundbreaking data follows the recent approval of INCIVEK, and it's exciting to know that some people are now completing their first month of INCIVEK combination treatment," said Peter Mueller, Ph.D., Chief Scientific Officer and Executive Vice President of Global Research and Development at Vertex.

On May 23, 2011, the U.S. Food and Drug Administration (FDA) approved INCIVEK for the treatment of genotype 1 chronic hepatitis C in adults with compensated liver disease (some level of damage to the liver but the liver still functions), including cirrhosis (scarring of the liver). The approval was based on data from three Phase 3 studies, including ADVANCE and REALIZE. The SVR (viral cure) rates included below are based on the approved analysis conducted by the FDA and Vertex and can be found in the Prescribing Information for INCIVEK.

People who received INCIVEK combination treatment achieved significantly higher rates of SVR, or viral cure, compared to those who received pegylated-interferon and ribavirin alone, regardless of prior treatment experience:

ADVANCE:

-- People new to treatment: 79 percent vs. 46 percent

REALIZE:

-- Relapsers: 86 percent vs. 22 percent
-- Partial responders: 59 percent vs. 15 percent
-- Null responders: 32 percent vs. 5 percent

INCIVEK was studied in all three groups of people who were treated previously but not cured. These groups included:

- Relapsers: defined as people whose hepatitis C virus was undetectable after a full course of previous treatment, but whose virus became detectable during the follow-up period;
- Partial responders: defined as people who achieved at least a 2 $\log_{10}$ reduction in hepatitis C virus at week 12, but whose hepatitis C virus never became undetectable by week 24 of a prior course of therapy; and
- Null responders: defined as people who achieved a less than 2 $\log_{10}$ reduction in hepatitis C virus at week 12 of a prior course of therapy. INCIVEK is the only newly approved medicine that has been studied in null responders.

Rash and anemia are the most serious side effects associated with INCIVEK. The most common side effects reported with INCIVEK combination treatment include fatigue, itching, nausea, diarrhea, vomiting, anal or rectal problems and taste changes.

For more information on INCIVEK, including full Prescribing Information, please visit www.INCIVEK.com.

About the ADVANCE and REALIZE Studies

ADVANCE and REALIZE were pivotal, Phase 3 randomized, double-blind, placebo-controlled, global studies, which evaluated INCIVEK in combination with Pegasys® (pegylated-interferon alfa-2a) and Copegus® (ribavirin). Both of these studies were part of a nearly 4,000-person clinical development program for INCIVEK. ADVANCE included 1,088 people who were new to treatment. REALIZE included 662 people who were treated previously but not cured, including relapsers, partial responders and null responders. The primary endpoint of these studies was SVR, or viral cure, in people who received INCIVEK combination therapy compared to those who received treatment with pegylated-interferon and ribavirin alone.

About INCIVEK

INCIVEK is an oral medicine that acts directly on the hepatitis C virus protease, an enzyme essential for viral replication. INCIVEK (750 mg) is given as two 375-mg tablets three-times daily for 12 weeks in combination with pegylated-interferon and ribavirin. Each monthly package of INCIVEK contains four weekly boxes that include daily blister strips to help patients keep track of their doses. After the first 12 weeks, all patients stop receiving INCIVEK and continue treatment with pegylated-interferon and ribavirin alone for an additional 12 weeks or 36 weeks of treatment. With INCIVEK combination therapy, more than 60 percent of people treated for the first time, as well as those who relapsed after previous therapy, are expected to complete all treatment in 24 weeks. All other patients receive a total of 48 weeks of treatment.

Vertex developed telaprevir in collaboration with Tibotec BVBA and Mitsubishi Tanabe Pharma. Vertex has rights to commercialize telaprevir in North America. Telaprevir was approved by the FDA in May 2011 and will be marketed in the United States under the brand name INCIVEK (in-SEE-veck). In Canada, telaprevir is under Priority Review by the Therapeutic Product Directorate (TPD) of Health Canada. Through its affiliate, Janssen, Tibotec has rights to commercialize telaprevir in Europe, South America, Australia, the Middle East and certain other countries. In December 2010, Janssen announced that the European Medicines Agency (EMA) accepted telaprevir for Accelerated Assessment in Europe. Mitsubishi Tanabe Pharma has rights to commercialize telaprevir in Japan and certain Far East countries.

Indication

INCIVEK™ (telaprevir) tablets is a prescription medicine used with the medicines peginterferon alfa and ribavirin to treat chronic (lasting a long time) hepatitis C genotype 1 infection in adults with stable liver problems, who have not been treated before or who have failed previous treatment.

It is not known if INCIVEK is safe and effective in children under 18 years of age.

IMPORTANT SAFETY INFORMATION

INCIVEK should always be taken in combination with peginterferon alfa and ribavirin. Ribavirin may cause birth defects or death of an unborn baby. Therefore, you should not take INCIVEK combination treatment if you are pregnant or may become

pregnant, or if you are a man with a sexual partner who is pregnant.

INCIVEK and other medicines can affect each other and can also cause side effects that can be serious or life threatening. There are certain medicines you cannot take with INCIVEK combination treatment. Tell your healthcare provider about all the medicines you take, including prescription and non-prescription medicines, vitamins and herbal supplements.

INCIVEK can cause serious side effects including rash and anemia. The most common side effects of INCIVEK include itching, nausea, diarrhea, vomiting, anal or rectal problems, taste changes and tiredness. There are other possible side effects of INCIVEK, and side effects associated with peginterferon alfa and ribavirin also apply to INCIVEK combination treatment. Tell your healthcare provider about any side effect that bothers you or doesn't go away.

Please see full Prescribing Information for INCIVEK, including the Medication Guide, available at www.INCIVEK.com.

You are encouraged to report negative side effects of prescription drugs to the FDA at 1-800-FDA-1088 OR 1-800-332-1088 or www.fda.gov/medwatch. You may also report side effects to Vertex at 1-877-824-4281.

About Hepatitis C

Hepatitis C is a serious liver disease caused by the hepatitis C virus, which is spread through direct contact with the blood of infected people and ultimately affects the liver.[1] Chronic hepatitis C can lead to serious and life-threatening liver problems, including liver damage, cirrhosis, liver failure or liver cancer.[1] Though many people with hepatitis C may not experience symptoms, others may have symptoms such as fatigue, fever, jaundice and abdominal pain.[1]

Unlike HIV and hepatitis B virus, chronic hepatitis C is curable.[2] However, approximately 60 percent of people do not achieve SVR,[3,4,5] or viral cure,[6] after treatment with 48 weeks of pegylated-interferon and ribavirin alone. If treatment is not successful and a person does not achieve a viral cure, they remain at an increased risk for progressive liver disease.[7,8]

More than 170 million people worldwide are chronically infected with hepatitis C.[6] In the United States, nearly 4 million people have chronic hepatitis C and 75 percent of them are unaware of their infection.[9] Hepatitis C is four times more prevalent in the United States compared to HIV.[9] The majority of people with hepatitis C in the United States were born between 1946 and 1964, accounting for two of every three people with chronic hepatitis C.[10] Hepatitis C is the leading cause of liver transplantations in the United States and is reported to contribute to 4,600 to 12,000 deaths annually.[11,12] By 2029, total annual medical costs in the United States for people with hepatitis C are expected to more than double, from $30 billion in 2009 to approximately $85 billion.[9]

About Vertex

Vertex creates new possibilities in medicine. Our team discovers, develops and commercializes innovative therapies so people with serious diseases can lead better lives. Vertex scientists and our collaborators are working on new medicines to cure or significantly advance the treatment of hepatitis C, cystic fibrosis, epilepsy and other life-threatening diseases.

Founded more than 20 years ago in Cambridge, MA, we now have ongoing worldwide research programs and sites in the U.S., U.K. and Canada.

(VRTX - GEN)

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