



Summary of investigation results

Hepatitis C Direct Acting Antivirals

May 18, 2016

Non-proprietary name

- a. Telaprevir
- b. Simeprevir Sodium
- c. Daclatasvir Hydrochloride
- d. Asunaprevir
- e. Vaniprevir
- f. Sofosbuvir
- g. Ledipasvir Acetate/Sofosbuvir
- h. Ombitasvir Hydrate/Paritaprevir Hydrate/Ritonavir

Brand name (Marketing authorization holder)

- a. Telavic Tablets 250 mg (Mitsubishi Tanabe Pharma Corporation)
- b. Sovriad Capsules 100 mg (Janssen Pharmaceutical K.K.)
- c. Daklinza Tablets 60 mg (Bristol-Myers Squibb K.K.)
- d. Sunvepra Capsules 100 mg (Bristol-Myers Squibb K.K.)
- e. Vanihep Capsules 150 mg (MSD K.K.)
- f. Sovaldi Tablets 400 mg (Gilead Sciences, Inc.)
- g. Harvoni Combination Tablets (Gilead Sciences, Inc.)
- h. Viekirax Combination Tablets (AbbVie G.K.)

Indications

- a. 1. Improvement of viremia in any of the following patients with serogroup 1 (genotype I [1a] or II [1b]) chronic hepatitis C virus infection
 - (1) Treatment-naïve patients with high blood HCV RNA load
 - (2) Patients who have failed to respond to, or have relapsed after, therapy including interferon

- 2. Improvement of viremia in patients with serogroup 2 (genotype III [2a] or IV [2b]) chronic hepatitis C virus infection who have failed to respond to, or have relapsed after, interferon monotherapy or interferon and ribavirin combination therapy.
- b and e. Improvement of viremia in any of the following patients with serogroup 1 (genotype I [1a] or II [1b]) chronic hepatitis C virus infection
 - (1) Treatment-naïve patients with high blood HCV RNA load
 - (2) Patients who have failed to respond to, or have relapsed after, therapy including interferon
- c, d, g, and h. Improvement of viremia in patients with serogroup 1 (genotype 1) chronic hepatitis C virus infection or compensated cirrhosis type C
- f. Improvement of viremia in patients with serogroup 2 (genotype 2) chronic hepatitis C virus infection or compensated cirrhosis type C

Summary of revision

a,b,d,e

- 1. “Patients currently infected with hepatitis B virus or patients with a history of hepatitis B virus infection” should be newly added in the Careful Administration section.
- 2. “Reactivation of hepatitis B virus” should be newly added in the Important Precautions section.

c,f,g,h

- 1. The Careful Administration section should be newly added in the package insert. In this new Careful Administration section, “Patients currently infected with hepatitis B virus or patients with a history of hepatitis B virus infection” should be added.
- 2. “Reactivation of hepatitis B virus” should be newly added in the Important Precautions section.

Background of the revision and investigation results

Cases of reactivation of hepatitis B virus have been reported in Japan and overseas due to increase in hepatitis B viral load in association with decrease in hepatitis C viral load after initiating treatment with hepatitis C direct acting antivirals, and there was a case of hepatic function disorder that ended up being fatal in Japan. Hepatitis C direct acting antivirals, for which there were no reports of reactivation of hepatitis B virus in Japan and overseas, may carry the same risk. Following an investigation result based on the opinions of expert



advisors and the available evidence, the MHLW/PMDA concluded that revision of the package insert was necessary.

The number of reported adverse reactions and fatal cases in the last 3 fiscal years in Japan

- a. No case associated with hepatitis B virus reactivation has been reported.
- b. A case associated with hepatitis B virus reactivation has been reported (the causal relationship to the product could not be ruled out for this case). No fatality has been reported.
- c and d. A total of 9 cases associated with hepatitis B virus reactivation have been reported (including 8 cases for which a causal relationship to the product could not be ruled out). Of the 9 cases, 2 fatal cases have been reported (including 1 case for which a causal relationship to the product could not be ruled out).
- e. No case associated with hepatitis B virus reactivation has been reported.
- f. A case associated with hepatitis B virus reactivation has been reported (the causal relationship to the product could not be ruled out for this case). No fatality has been reported.
- g. A total of 2 cases associated with hepatitis B virus reactivation have been reported (the causal relationship to the product could not be ruled out for both cases). No fatality has been reported.
- h. No case associated with hepatitis B virus reactivation has been reported.