

Summary Safety Review - Tamiflu (oseltamivir) and generics - Assessing the Potential Risk of Haemorrhages

Product: Tamiflu (oseltamivir) and generics

Potential Safety Issue: Bleeding (haemorrhages)

Key Messages

- **Oseltamivir is a prescription drug authorized for sale in Canada to treat or prevent the onset of flu.**
- **Health Canada reviewed the potential risk of bleeding (haemorrhages) in general with the use of oseltamivir.**
- **The Canadian product safety information for oseltamivir includes information specifically on the risk of gut (gastrointestinal) bleeding based on experience with its use after marketing.**
- **The current review was triggered by updates made by the Japanese Pharmaceutical and Medical Devices Agency (PMDA) to the product safety information for oseltamivir related to the risk of bleeding in general. The purpose of this review was to assess if additional actions were required in Canada.**
- **The information reviewed was inconclusive regarding the risk of bleeding in general. However, the review concluded that there may be a link between the use of oseltamivir and the risk of lower gastrointestinal bleeding.**
- **Given that the product safety information for oseltamivir already includes the risk of gastrointestinal bleeding, no updates are required at this time.**
- **Health Canada will continue to monitor safety information of oseltamivir.**

Overview

Health Canada reviewed the potential risk of bleeding (haemorrhages) in general with the use of oseltamivir to determine whether additional actions were required in Canada. The safety review was started when Health Canada became aware that the PMDA updated the product safety information for oseltamivir with new information on the risk of haemorrhages in general.

Use in Canada

- Oseltamivir is a prescription drug authorized for sale in Canada to treat or prevent the onset of flu.
- Oseltamivir has been marketed in Canada since 1999 under the brand name Tamiflu and is currently available as 30 mg, 45 mg, and 75 mg capsules, and as a 6 mg/mL powder for oral suspension. Generic versions of Tamiflu are also available for sale in Canada.
- There were about 1 million prescriptions for oseltamivir filled in Canada between 2015 and 2019.

Safety Review Findings

- Health Canada reviewed the available information from searches of the Canada Vigilance database [a](#), international databases, and published literature.
- Health Canada reviewed 59 case reports (4 Canadian, 55 international) of bleeding in patients receiving oseltamivir. Of the 59 case reports, 42 reports showed a possible link

between oseltamivir use and haemorrhages, with 22 of these involving bleeding in the lower gut (gastrointestinal bleeding). Three cases were unlikely to be linked to oseltamivir use, and 14 cases (4 Canadian) could not be assessed due to several contributing factors such as incomplete information about pre-existing medical conditions, lack of detailed information in the reports, and co-existing infections that may have contributed to the adverse event.

- Health Canada also reviewed 5 articles published in the scientific literature on the risk of bleeding and oseltamivir use. There was limited information to support a link between the potential risk of bleeding and the use of oseltamivir in 4 of the 5 articles.
- In addition, Health Canada reviewed 4 articles from the published scientific literature for a potential interaction between oseltamivir and warfarin, a blood thinner medication that may cause bleeding. Overall, the review did not find evidence to support an interaction between oseltamivir and warfarin leading to increased bleeding.
- The information reviewed was inconclusive regarding the risk of bleeding in general. However, the review concluded that there may be a link between the use of oseltamivir and the risk of lower gastrointestinal bleeding.

Conclusions and Actions

- Health Canada's review of the available information concluded that there may be a link between the use of oseltamivir and the risk of lower gastrointestinal haemorrhages. The Canadian product safety information for oseltamivir already includes information on the risk of gastrointestinal bleeding. Therefore, the safety information for oseltamivir is appropriate at this time.
- Health Canada encourages consumers and healthcare professionals to [report](#) any side effects related to the use of oseltamivir and other health products to the Canada Vigilance program.
- Health Canada will continue to monitor safety information involving oseltamivir to identify and assess potential risks, as it does for all health products on the Canadian market. Health Canada will take appropriate and timely action should new health risks be identified.

Additional Information

The analysis that contributed to this safety review included scientific and medical literature, Canadian and international adverse reaction reports and what is known about the use of oseltamivir both in Canada and internationally.

For additional information, [contact the Marketed Health Products Directorate](#)

- a) Canadian reports can be accessed through the [Canada Vigilance Online Database](#).