



EUROPEAN MEDICINES AGENCY  
SCIENCE MEDICINES HEALTH

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## EMA reviews direct-acting antivirals for hepatitis C

On 17 March 2016, the European Medicines Agency (EMA) started a review of medicines known as direct-acting antivirals used for treating chronic (long-term) hepatitis C (an infectious disease that affects the liver, caused by the hepatitis C virus).

Direct-acting antivirals (Daklinza, Exviera, Harvoni, Olysio, Sovaldi and Viekirax) are important medicines for the treatment of chronic hepatitis C and can be used without interferons, which are less well tolerated. Until recently, interferons were part of treatment regimens for hepatitis C. Interferons are known to act against both hepatitis B and C viruses, which may be present at the same time in some patients.

The review was triggered by reports of hepatitis B re-activation in patients who have been infected with hepatitis B and C viruses, and who were treated with direct-acting antivirals for hepatitis C. Hepatitis B re-activation refers to a return of active infection in a patient whose hepatitis B infection had been inactive. The review will assess the extent of hepatitis B re-activation in patients treated with direct-acting antivirals for hepatitis C and evaluate whether any measures are needed to optimise the treatment.

In addition, in April 2016 data from a study<sup>1</sup> became available regarding the risk of liver cancer (hepatocellular carcinoma) coming back in patients who were treated with direct-acting antivirals for hepatitis C. The study suggested that these patients were at risk of their cancer coming back earlier than patients with hepatitis C who were not treated with direct-acting antivirals. The scope of the ongoing review has therefore been extended to also assess the risk of liver cancer with these medicines.

While the review is ongoing, patients should speak to their doctor or pharmacist if they have any questions or concerns.

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<sup>1</sup> Reig, M., Mariño, Z., Perelló, C., Iñarrairaegui, M., Ribeiro, A., Lens, S., Díaz, A., Vilana, R., Darnell, A., Varela, M., Sangro, B., Calleja, J.L., Forns, X., Bruix, J., Unexpected early tumor recurrence in patients with hepatitis C virus -related hepatocellular carcinoma undergoing interferon-free therapy: a note of caution, *Journal of Hepatology* (2016)



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### **More about the medicines**

The following direct-acting antivirals have been approved in the EU for treating chronic hepatitis C: Daklinza (daclatasvir), Exviera (dasabuvir), Harvoni (sofosbuvir / ledipasvir), Olysio (simeprevir), Sovaldi (sofosbuvir) and Viekirax (ombitasvir / paritaprevir / ritonavir). They work by blocking the action of proteins in the hepatitis C virus which are essential for it to make new viruses.

More information on these medicines can be found on EMA's website: [ema.europa.eu/Find/medicine/Human\\_medicines/European\\_public\\_assessment\\_reports](http://ema.europa.eu/Find/medicine/Human_medicines/European_public_assessment_reports).

### **More about the procedure**

The review of direct-acting antivirals for the treatment of hepatitis C was initiated on 17 March 2016 at the request of the European Commission, under Article 20 of Regulation (EC) No 726/2004. On 14 April 2016 the scope of the review was extended to include the risk of liver cancer, in addition to the potential risk of hepatitis B re-activation.

The review is being carried out by the Pharmacovigilance Risk Assessment Committee (PRAC), the committee responsible for the evaluation of safety issues for human medicines, which will make a set of recommendations.

The PRAC recommendations will then be forwarded to the Committee for Medicinal Products for Human Use (CHMP), responsible for questions concerning medicines for human use, which will adopt a final opinion. The final stage of the review procedure is the adoption by the European Commission of a legally binding decision applicable in all EU Member States.