Pharmaceutical opinion : **Interaction between potent inducers and anti-HCV**

Patient : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ DOB \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_ Telephone : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

After analyzing your patient's file, I noticed a problem with his medication.

**Glecaprevir / Pibrentasvir (Maviret)**  **and**

**Anticonvulsivants**

* Carbamazepine (Tegretol)
* Oxcarbazepine (Trileptal)
* Phenobarbital (Luminal)
* Phenytoin (Dilantin)

**Interaction mecanism :** Carbamazepine, oxcarbazepine, phenobarbital and phenytoin are potent CYP 3A4 and P-gp inducers. The anti-HCVs mentioned above are substrates of CYP3A4 and/or P-gp. This induction can therefore significantly decrease the plasma concentration of the above-mentioned anti-HCVs, thus leading to a loss of clinical efficacy.

***Anti-HCV and anticonvulsivants***

Additional information:

Glecaprevir/Pibrentasvir (Maviret) + Carbamazepine 200 mg BID : ↓66% and ↓51% in AUC of glecaprevir and pibrentasvir, respectively. Combination with other anticonvulsivants has not been studied. According to product monograph, concomitant use with potent CYP 3A4 inducers such as carbamazepine, oxcarbazepine, phenobarbital and phenytoin is not recommended.

**Case report of five patients** who received standard doses for the treatment of chronic hepatitis C infection while being maintained on first generation anticonvulsants (carbamazepine, phenobarbital, phenytoin). Four patients were treated with glecaprevir/pibrentasvir for 8 weeks and one patient with ledipasvir/sofosbuvir for 12 weeks. All five patients achieved a sustained virologic response (SVR) despite this drug interaction. The authors conclude that all efforts to prevent concomitant use with strong inducers should be made.

Possible therapeutic options: **Anticonvulsivant name** : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* Substitute anticonvulsant for: gabapentin, pregabalin, levetiracetam, brivaracetam, or valproic acid

Dosage : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ REN : \_\_\_\_\_\_\_

* Other :\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ REN : \_\_\_\_\_\_\_

**Follow-up :** Efficacy of anti-HCV and effectiveness and safety of the chosen alternative drug.

Do not hesitate to contact us for additional information.
In collaboration,

Pharmacist : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Telephone : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_​ Fax : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

As a prescription, date and sign:

Date : \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_ Signature and licence : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_