# Anticoagulant & Antiplatelet Treatment

*Charts revised March 2024.* *Full information available at www.hep-druginteractions.org*



| | | DCV | EBR/GZ | GLP/PIB | LED/SOF | OBV/PTV/r | OBV/PTV/r +DSV | RDV | SOF | SOF/VEL | SOF/VEL/VOX |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Anticoagulants | Acenocoumarol | ↔ [a] | ↔ [a] | ↔ [a] | ↔ [a] | ↔ or ↓ [b] | ↔ or ↓ [b] | ↔ [a] | ↔ [a] | ↔ [a] | ↔ [a] |
| | Apixaban | ↑ | ↑ [c] | ↑ [c] | ↑ [c] | ↑ [d] | ↑ [d] | ↔ | ↔ | ↑ [c] | ↑ [c] |
| | Dabigatran | ↑ | ↑ | ↑ 138% [e] | ↑ | ↑ | ↑ | ↔ | ↔ | ↑ | ↑ 161% |
| | Dalteparin | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ |
| | Edoxaban | ↑ | ↑ [c] | ↑ [c,f] | ↑ | ↑ [f] | ↑ [f] | ↔ | ↔ | ↑ | ↑ |
| | Enoxaparin | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ |
| | Fondaparinux | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ |
| | Heparin | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ |
| | Phenprocoumon | ↔ [a] | ↑ [f] | ↑ [f] | ↑ [f] | ↑ [f] | ↑ [f] | ↔ [a] | ↔ [a] | ↔ [a] | ↔ [a] |
| | Rivaroxaban | ↑ | ↑ [c] | ↑ [c] | ↑ [c] | ↑ | ↑ | ↔ | ↔ | ↑ [c] | ↑ [c] |
| | Warfarin | ↔ [a] | ↔ [a] | ↔ [a] | ↔ [a] | ↔ [g] | ↔ [g] | ↔ [a] | ↔ [a] | ↔ [a] | ↔ [a] |
| Antiplatelets | Aspirin | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ |
| | Clopidogrel | ↔ | ↔ | ↔ | ↔ | ↓ [h] | ↓ [h] | ↔ | ↔ | ↔ | ↔ |
| | Dipyridamole | ↔ | ↔ | ↔ | ↔ | ↑ [i] | ↑ [i] | ↔ | ↔ | ↔ | ↔ |
| | Prasugrel | ↔ | ↔ | ↔ | ↔ | ↓ [j] | ↓ [j] | ↔ | ↔ | ↔ | ↔ |
| | Ticagrelor | ↑↓ ⇑ | ↑ [k] | ↑ [k] | ↑ | ↑ | ↑ | ↔ | ↔ | ↑ [k] | ↑ [k] |

**Colour Legend**

- No clinically significant interaction expected.
- These drugs should not be coadministered.
- Potential interaction which may require a dosage adjustment or close monitoring.
- Potential interaction predicted to be of weak intensity.

**Text Legend**

↑ Potential increased exposure of the anticonvulsant
↓ Potential decreased exposure of the anticonvulsant
↔ No significant effect
⇑ Potential increased exposure of HCV DAA
⇓ Potential decreased exposure of HCV DAA

Numbers refer to increased or decreased AUC as observed in drug-drug interaction studies.

a A pharmacokinetic interaction is unlikely, but close monitoring of INR is recommended as this may change as a result of improved liver function.

b Can be coadministered but with close monitoring of international normalized ratio (INR) as dose modifications may be necessary in some patients.

c A large, retrospective, multi-centre cohort study of patients coadministered HCV DAAs and DOACs reported a low incidence of bleeding which was similar to historic controls of patients with liver disease on DOACs alone, providing reassurance that any increase in anticoagulant levels is unlikely to be clinically relevant

d European SmPC says coadministration not recommended, but US Prescribing Information advises a 50% dose reduction of apixaban. Refer to Prescribing Information for further details.

e Coadministration is contraindicated in the European SmPC for glecaprevir/pibrentasvir. However, the US Prescribing Information for glecaprevir/pibrentasvir refers to the dabigatran Prescribing Information which suggests no dose adjustment is needed in subjects with normal renal function, but to reduce dabigatran to 75 mg twice daily in subjects with creatinine clearance 30-50 mL/min (or avoid use) and does not recommend coadministration in subjects with creatinine clearance <30 mL/min.

f Monitor INR closely.

g A pharmacokinetic interaction is unlikely, but reductions in INR have been reported. Close monitoring of INR is recommended.

h Activation of clopidogrel to its active metabolite is decreased by ritonavir leading to non-responsiveness to clopidogrel. The AUC of the active metabolite of clopidogrel decreased by 51% in the presence of ritonavir and dasabuvir.

i No a priori dose adjustment is recommended but monitoring may be required for increased side effects and toxicities.

j Potential decrease of active drug exposure, but inhibition of platelet aggregation may not be affected. Coadministration with 100 mg ritonavir increased the AUC of prasugrel active metabolite by 38%.

k Close monitoring is recommended due to the narrow therapeutic index of ticagrelor.

Abbreviations: DCV Daclatasvir; ELB/GZR Elbasvir/Grazoprevir; G/P Glecaprevir/Pibrentasvir; LED Ledipasvir; OBV/PTV/r +DSV Ombitasvir/Paritaprevir/Ritonavir +Dasabuvir; RDV Ravidasvir; SOF Sofosbuvir; VEL Velpatasvir; VOX Voxilaprevir