Prescribing tip number: 409 Date: 7th September 2023





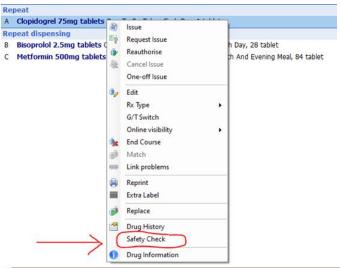
Prescribing Tip For Information

Interaction between clopidogrel and proton pump inhibitors (PPIs)

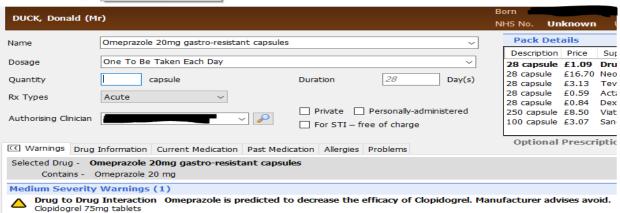
Avoid the combined use of clopidogrel with omeprazole or esomeprazole due to a significant interaction. Other PPIs are considered safe with clopidogrel. (see SPS for further information)

- Clopidogrel is a pro-drug activated by the enzyme CYP2C19. Omeprazole and esomeprazole are inhibitors of this enzyme meaning concurrent use can reduce plasma levels of activated clopidogrel.
- Although other PPIs can inhibit CYP2C19 to a lesser extent, clinically significant interactions have not been observed.
- Therefore, omeprazole and esomeprazole should be avoided in patients taking clopidogrel. Lansoprazole, pantoprazole or rabeprazole should be used in preference.
- The <u>Medicines and Healthcare products Regulatory Agency (MHRA)</u> and European Medicines Agency (EMA) advise against concurrent use of clopidogrel with omeprazole and esomeprazole. They do not extend this recommendation to other PPIs.
- It should be borne in mind that patients can buy omeprazole and esomeprazole
- The use of other known CYP2C19 inhibitors (such as fluoxetine, cimetidine, voriconazole, fluconazole, ciprofloxacin, carbamazepine and oxcarbazepine) with clopidogrel should also be discouraged because these are expected to have a similar effect to omeprazole and esomeprazole.

Patients prescribed clopidogrel and omeprazole or esomeprazole should be reviewed for an alternative PPI. This interaction is included within the CQC clinical searches which check the provider is appropriately actioning MHRA/CAS/drug safety update alerts. A search has been produced by Ardens and is freely available to all.



Interactions can be checked for using the BNF, the Summary of Product Characteristics (emc) and the EMIS safety check function



To contact the Medicines Optimisation Team please phone 01772 214302