

OMEPRAZOLE (ACID REDUCER [OTC]; PRILOSEC; PRILOSEC OTC [OTC])

- **Drug Class:** Proton Pump Inhibitor; Substituted Benzimidazole
- **Gene Responsible for Drug Metabolism:** CYP2C19
 - Dosing adjustments may be considered for patients with either CYP2C19 poor, normal, rapid, or ultrarapid metabolizer activity depending on the clinical scenario.
 - Patients with CYP2C19 ultrarapid metabolizer activity are less likely to achieve therapeutic outcomes utilizing standard omeprazole dosing. The CPIC Omeprazole Dosing Guideline recommends to increase the starting daily dose as well as monitoring the efficacy in CYP2C19 ultrarapid metabolizers.
 - It is recommended that patients with CYP2C19 rapid and normal metabolizer activity that are being treated for H. pylori infection and erosive esophagitis consider increasing the dose by 50% to 100% after initiation with the standard starting daily dose.
 - It is recommended that those patients with CYP2C19 intermediate and poor metabolizer activity initiate standard dosing. If these patients are taking omeprazole as a chronic therapy or therapy lasting greater than 12 weeks and have achieved efficacy, it is recommended that their daily dose should be reduced by 50%.
- **Sources:**
 - http://online.lexi.com.onu.ohionet.org/lco/action/doc/retrieve/docid/patch_f/7397?cesid=3bDHHsII0iC&searchUrl=%2Ffco%2Faction%2Fsearch%3Fq%3Domeprazole%26t%3Dname%26va%3Domeprazole#geneconsdrlst
 - <http://online.lexi.com.onu.ohionet.org/lco/action/doc/retrieve/docid/42/6449328>
 - <https://www.pharmgkb.org/guidelineAnnotation/PA166219103>