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CONSEQUENCES AND COMPLICATIONS OF LONG TERM USE OFPROTON PUMP INHIBITORS

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Proton Pump Inhibitors (PPIs) have become one of the most commonly prescribed category of drugs in both primary as well as tertiary care, commonly for gastric acid-related disorders. It is advised that no more than three 14-day treatment courses with PPIs should be used in one year.

The two main indications for the long-term use of PPIs are gastro esophageal reflux disease and concomitant use with the maintenance dose of Non-Steroidal Anti-Inflammatory Drugs (NSAIDs).
PPIs block the gastric H^+,K^+-ATPase, inhibiting gastric acid secretion. If the drug is discontinued, there is a potential risk for rebound hypersecretion, creating a sort of dependency on the drug because the body is acclimated to having acid suppressed.

The potential adverse effects relating to PPIs are Hypochlorhydria (11%-24%) leading to pernicious anaemia and bone fractures(elevated risk after 7 years of continuous PPI therapy) and Hypergastrinemia (20%-25%). Review of various literatures have shown that long-term PPI use is associated with upto fourfold increase in the risk of fundic gland polyps(upto 36%).

Other potential consequences of chronic PPI use are malabsorption of key minerals (calcium and magnesium) in the body, increased risk of infections, cancer (5%-12%), severe drug interactions and birth defects.
The most commonly seen infections with chronic PPI use are Enteric Infections and Community Acquired Pneumonia(CAP).A case-controlled study discovered an associated 2.5-fold risk of infection with concomitant PPI therapy. A population-based case-controlled study of7642 CAP cases identified, 11% were chronic PPI users.

Another study found that 50% of chronic PPI users are more likely to develop CAP.Elderly, malnourished, immune-compromised, chronically ill, and osteoporotic patients theoretically could be at increased risk from long-term therapy.

In conclusion, based on the above evidences, pharmacists are poised to educate patients about the benefits and risks associated with chronic PPI use.

Keywords:Proton Pump Inhibitors, Hypochlorhydria, Hypergastrinemia, Fundic gland polyps