

Promotion of rational use of proton pump inhibitors (PPI) in inpatient setting: are guidelines enough ?

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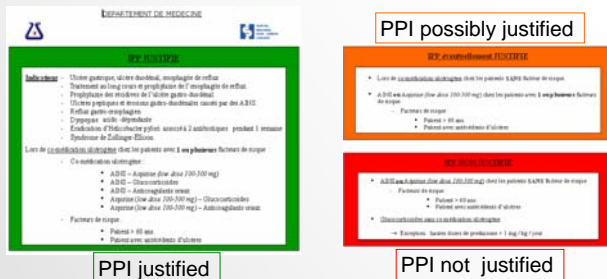
Background and Objective:

PPI figure in the top 10 selling drugs in Switzerland. This led us to scrutinize PPI use and eventually to evaluate the impact of local practice guidelines.

Design:

Interrupted time series (ITS) with 3 periods of 2 months before the intervention P1 (01.03.2004 to 30.04.2004), P2 (01.05.2004 to 30.06.2004), P3 (01.07.2004 to 30.08.2004) and 3 periods after P4 (15.05.2005 to 15.07.2005), P5 (16.07.2005 to 15.09.2005), P6 (16.09.2005 to 15.11.2005).

The intervention included the presentation and dissemination (card see below) of guidelines to physicians.

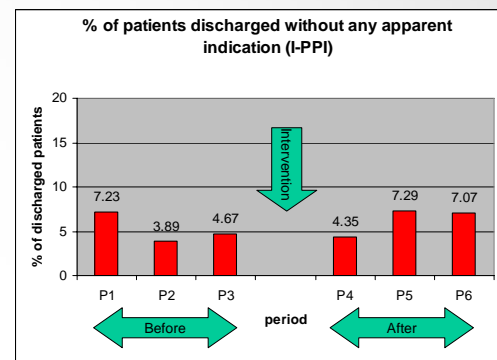


Results:

1328 hospital stays were screened during P1-P3 and 1144 during P4-P6.

Around 40% received a PPI during their stay; this percentage did not change significantly from P1 to P6.

After the release of guidelines, the percentage of patients discharged with I-PPI was initially lower (P4=4.35% vs mean P1-P3 = 5.35%) but subsequently rose (P5 = 7.29%; P6 = 7.07%). See graphic 1



Graphic 1

PPI prescriptions data were extracted from the electronic medical record. As indications for PPI use were not available, relevant facts justifying the treatment (e.g. consultation of gastroenterologist or use of non steroidal anti-inflammatory drugs) were used as proxy indicators.

The percentage of S-PPI was also higher (P4 = 1.6% vs mean P1-P3 = 0.53%) but subsequently dropped (P5 = 0.97%; P6 = 0.33%). See graphic 2

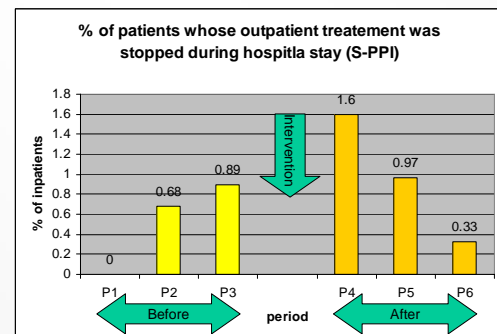
Setting:

Internal medicine department in a public hospital.

Main outcome measures:

Evolution of the percentage of patients

- receiving a PPI during their hospital stay
- discharged with a PPI initiated without any apparent indication (I-PPI)
- whose outpatient treatment was stopped during hospital stay (S-PPI)



Graphic 2

Conclusions:

Guidelines had no impact on the inpatient use of PPI and had only a marginal impact on I-PPI and S-PPI. The ITS design allowed to show that this impact was not sustained over the time. An active reinforcement by clinical pharmacists could be a way to solve this issue.