

Substantial Use of Long-term Proton Pump Inhibitors in NL

Choosing Wisely Canada Recommendation

Don't maintain long-term Proton Pump Inhibitors (PPIs) for gastrointestinal symptoms without an attempt to stop/reduce PPI at least once per year in most patients.

Practice Points

1. Long-term PPI use predisposes to gastric cancer, enteric infection, fractures, pneumonia, acute interstitial nephritis, hypomagnesemia, Vitamin B12 deficiency.
2. Exemption from the guideline include patients with Barrett's esophagus, gastrointestinal bleeding, severe esophagitis, or those requiring prednisone/NSAIDs.
3. In a study of NLPDP patients, about 6% of patients on PPIs for at least one year were also on NSAIDs or prednisone for at least 75% of the time.
4. For mild-moderate gastroesophageal reflux PPIs are necessary for 4–6 weeks, and for peptic ulcer disease for up to 12 weeks.

Data Source

Pharmacy Network of NL at NL Centre for Health Information provided prescriptions to outpatients for PPIs from 1 Jun 2017 – 30 Jun 2019 (25 months).

Results

- During the study there were 996,946 dispenses for 526,425 prescriptions of PPIs provided to 138,455 patients, 86% provided by family physicians (FPs) and 4.3% by registered nurses (RNs)/nurse practitioners (NPs).

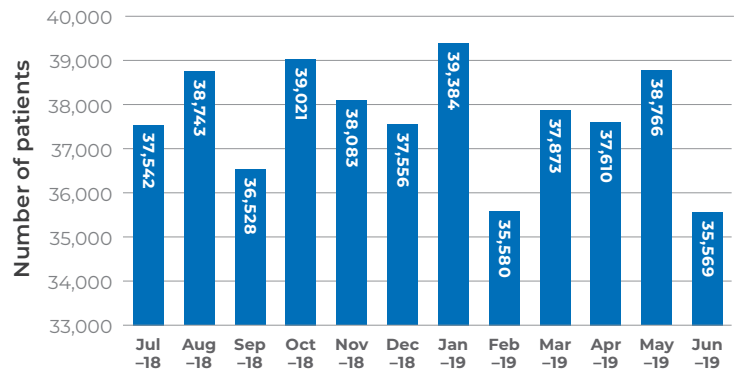


Figure 1. The Number of Patients Prescribed PPIs Each Month From 1 Jul 2018 – 30 Jun 2019

- During one year (1 July 2018 – 30 June 2019), 114,186 patients received at least one prescription for PPIs, a rate of 22/100 population.
- In June 2019, the number of patients taking PPIs was 73,047 (73,047/521,542), a prevalence rate of 14/100 population.
- The number of new patients started on PPIs during the year was 25,686, an incidence rate of 5/100 population.
- The number of patients during the year who were prescribed PPIs for longer than 3 months was 97,228, 85% of total.
- Excluding incident patients, the number of patients in the year prescribed PPIs for at least one year was 70,904, a rate of 14/100 population.

Table 1. Patients on PPIs for >3 Months or >1 Year by Age, Sex, and Locality for the Year 1 Jul 2018 – 30 Jun 2019

Patients		>3 months (>90 days)		>12 months (>365 days)	
		N	%	N	%
Sex	Male	42,958	44	31,164	44
	Female	54,268	56	39,740	56
Locality	Urban	46,863	48	33,793	48
	Rural	50,084	52	36,985	52
Age		Median		Median	
	Male	60		61	
	Female	61		62	

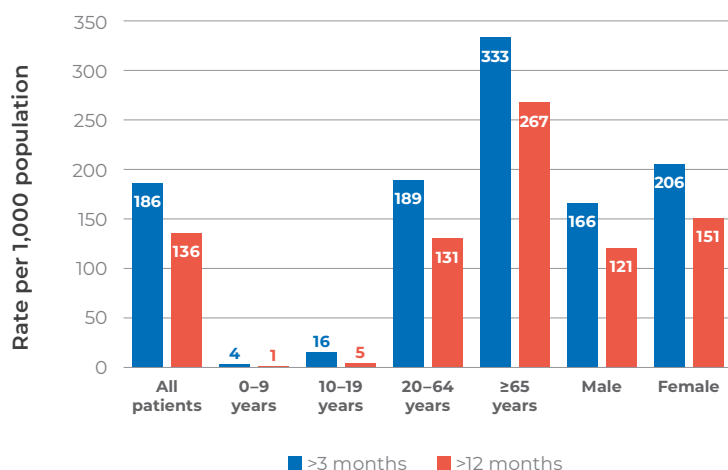


Figure 2. Prescription Rate/1,000 Population for Patients on PPIs for >3 Months and >12 Months

- There was little use of long-term PPIs in people <20 years. Although the quantity used was higher in adults 20–64 years the rate/1,000 people was highest in those ≥65 years.
- Women were more frequent long-term users of PPIs than men whether analysed by quantity or rate/1,000 population.

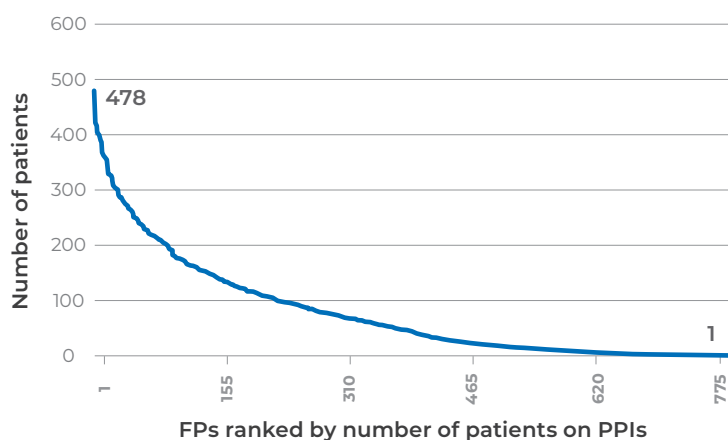


Figure 3. Ranking of FPs by the Number of Patients on PPIs for ≥12 months (1 Jul 2018 – 30 Jun 2019)

- When analyzed by prescriber, 80% of long-term prescribing by FPs is undertaken by 44% of FPs.
- 225 FPs prescribed PPIs for >1 year in >100 patients.

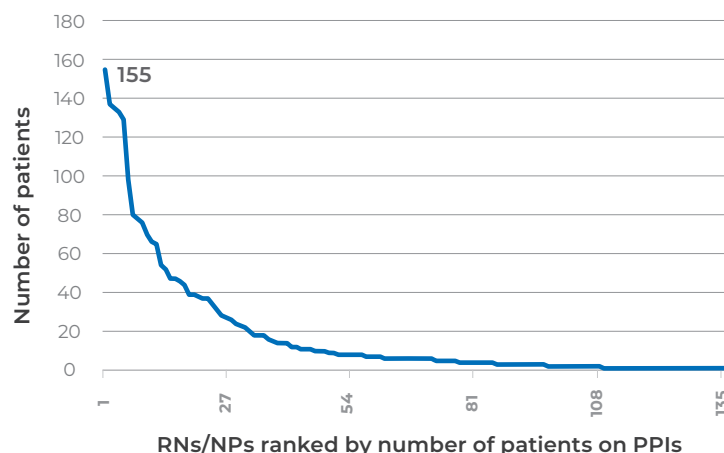


Figure 4. Ranking of Registered Nurses (RNs)/Nurse Practitioners (NPs) by the Number of Patients on PPIs for ≥12 months, 1 Jul 2018 – 30 Jun 2019

- 4 RNs/NPs prescribed PPIs for >1 year in >100 patients.

Conclusions

1. The use of PPIs in NL is high and they are generally prescribed for >3 months.
2. Long-term use for >1 year occurs in 14% of the population. Although the quantity of prescriptions was highest in adults 20–64 years, the rate/1,000 people was highest in those ≥65 years. Women were more frequent users of long-term PPIs than men.
3. The prescription of long-term PPIs was a practice common to the majority of FPs suggesting de-prescribing will be a challenge.