

Wide Variability in the Use of Antibiotics by Family Physicians

Choosing Wisely Canada Recommendation

Multiple recommendations exist for not using antibiotics for upper respiratory infections, sore throat and otitis media that are most likely viral in origin or for asymptomatic bacteriuria in non-pregnant women.

See www.choosingwiselycanada.org/campaign/antibiotics-primary-care.

Practice Points

- NL has the highest use of antibiotics per capita in Canada.
- Based on NLPDP data there was a 9% decrease in the number of prescriptions of antibiotics by Family Physicians (FP) and 15% by Nurse Practitioners (NP) in 2017 compared to 2016.
- In 2017, the NL Pharmacy Network started to capture all antibiotic prescriptions in the community.

Methods

- Data from the NL Pharmacy Network on prescriptions for antimicrobials given to outpatients were provided by the NL Centre for Health Information from 1 Jul 2017–30 Jun 2019.
- Indications for prescriptions were not available.
- 912,435 prescriptions, representing 2,841 unique prescribers, were written between 1 Jul 2017–30 Jun 2019. 70,026 non-oral prescriptions (7.7%) were excluded.
- Billing information from 2017 was derived from the MCP Fee-for-Service Physician Claims database.

Results

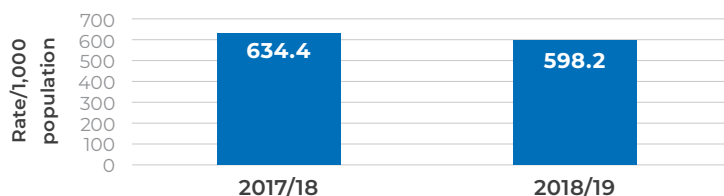


Fig. 1. Population Rate of Antibiotic Use by FPs

- Rate/1,000 population of antibiotic use by FPs decreased by 5.7% compared to 2017/18.

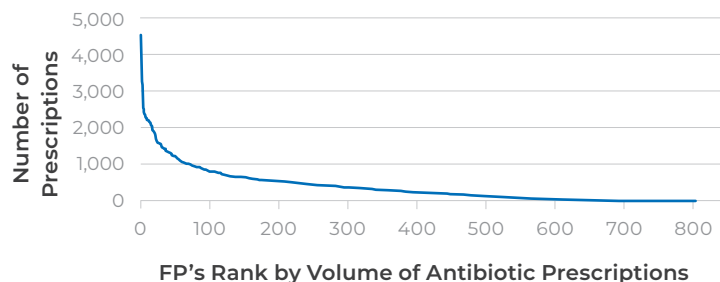


Fig. 2. Number of Oral Antibiotic Prescriptions Ranked by FP (1 Jul 2018 - 30 Jun 2019)

- 20% of FPs prescribed 58% of all oral antibiotics in 2018/19.

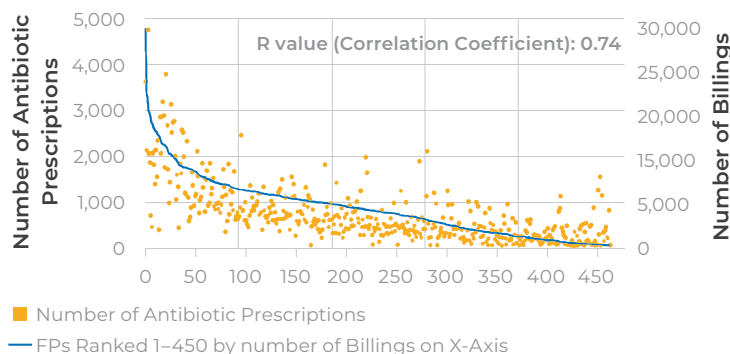


Fig. 3. Physicians Ranked by Number of Billings in 2017 (X-axis) and Matched with Number of Antibiotic Prescriptions (1 Jun 2017 – 31 May 2018) (Y-axis)

- There is a strong correlation between the number of antibiotics prescribed and the number of billings by FPs. However, within each quintile of billings (vertical line) there is still a wide variability by FP.

Conclusions

- Although there was a decrease in the number of antibiotics prescribed comparing 2018/19 to 2017/18, some FPs were high prescribers.
- The highest prescribers correspond to the busiest FPs, however there is wide variability as some FPs prescribe more antibiotics compared to their peers when matched by number of billings.