

Modest Reduction in Use of Oral Antibiotics by Health Care Providers but Continued High Inappropriate Use of Ciprofloxacin

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.
- Rates of Ciprofloxacin resistant E. coli (18%) are high in NL.
- For respiratory tract infections, urinary tract infections, and skin and soft tissue infections, ciprofloxacin should be limited to conditions likely or proven to be caused by Pseudomonas aeruginosa.

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.

Results

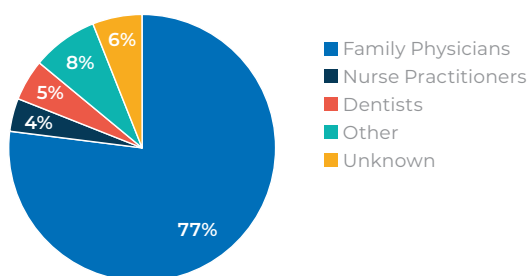


Fig. 1. Proportion of Prescriptions by Health Care Provider

- 77% of antibiotic prescriptions were provided by FPs, 5% by dentists, and 4% by NPs.

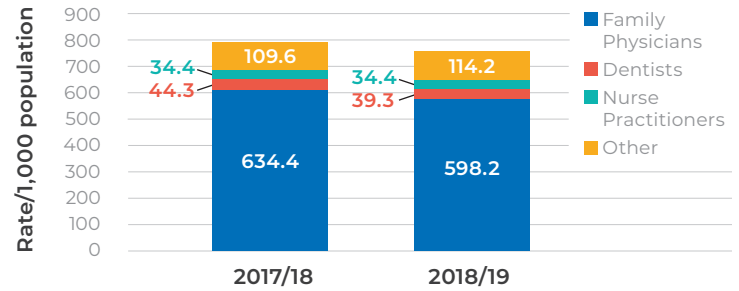


Fig. 2. Population Rate of Antibiotics Prescribed by Health Care Provider

- The rate of use of oral antibiotics in NL was 786/1,000 population. Rate of use of antibiotics by FPs decreased by 5.7%, 11.3% by dentists, and there was no change in NP's rate.

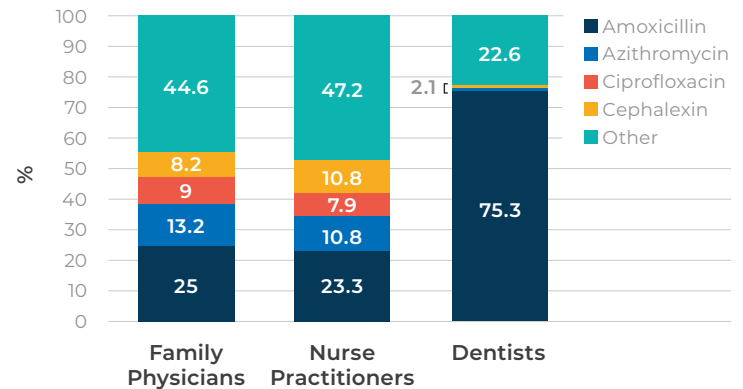


Fig. 3. Type of Antibiotics Prescribed by Health Care Provider

- Amoxicillin was the most prescribed drug by FPs, NPs and dentists at a rate of 25, 23.3, and 75.3% respectively.
- Ciprofloxacin comprised 9% of prescriptions by FPs, 7.9% by NPs and 0.3% by dentists.

Conclusions

- There was a 6% reduction in use of oral antibiotics by FPs, 11% by dentists, and no change for NPs.
- Use of antibiotics remains high.
- Use of ciprofloxacin is high. Restricted use of ciprofloxacin is indicated in view of high E. coli ciprofloxacin resistance.