Submission Id: 3678

Title

Baseline inappropriate antibiotic use in primary care patients with viral respiratory tract infections with 2019 and 2020.

Priority 1 (Research Category)

Acute respiratory infections

Presenters

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Abstract

Context: Respiratory tract infection (RTI) is the leading cause of avoidable antimicrobial use in primary care. How the COVID-19 pandemic has impacted antibiotic prescribing practices across Canada is unknown. The purpose of this study was to examine rates of antibiotic prescribing for RTI in primary care during the first year of the pandemic (2020), compared to baseline in 2019. Study Design and Analysis: Cross sectional study. Dataset: Canadian Primary Care Sentinel Surveillance Network electronic medical record data from sites in British Columbia, Alberta, Manitoba, Ontario, Quebec, Nova Scotia and Newfoundland. Population Studied: Patients that met the case definition criteria for an RTI or a Urinary Tract Infection (UTI) in 2019, and in 2020. Outcome measures: We examined oral antibiotic prescribing for patients who were identified as having a primary care visit for RTI. The same analysis was repeated for urinary tract infection (UTI) as a tracer condition. The antibiotic use considered avoidable for RTI was defined by Choosing Wisely Canada. Results: A total of 1,692,876 patients with a valid birth year and sex and at least one visit to primary care in 2019 and 2020 were included. Patient visits for RTI decreased from 2.3% in 2019 to 1.6% in 2020 (p<.0001), as did patient visits for UTI (1.1% vs 0.7%, p<.0001). In 2019, 28.0% of patients visits for RTI were prescribed an antibiotic, and this proportion decreased significantly to 20.6% in 2020 (<.0001). The drop in antibiotic prescriptions for RTI was driven by a decrease in prescribing for common cold (13.6% vs. 11.3%, <.0001) and for acute bronchitis/asthma (15.2% vs. 7.3%, p<.0001). In comparison, antibiotic prescribing for visits related to UTI increased marginally between 2019 and 2020 (71.6% vs. 72.3%, p=0.007). Conclusions: A significant decrease in antibiotic prescribing for RTI across primary care was observed during the first year of the COVID-19 pandemic, likely related to the changes in epidemiology and care delivery models in primary care. CPCSSN can provide pan-Canadian surveillance of antibiotic prescribing practices in primary care that can be used for provider feedback and quality improvement.