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Reduction in antibiotic prescribing in Swedish primary care. A retrospective study of electronic patient records

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Background & Aim: To identify trends in management of infections in Swedish primary care particularly with regards to antibiotic prescribing and adherence to national guidelines.

Method: A descriptive study of Sweden's largest database regarding diagnose linked antibiotic prescription data, the Primary care Record of Infections in Sweden (PRIS), for the years 2008, 2010 and 2013.

Results: Although, the consultation rate for all infections remained around 30% each year, the total antibiotic prescribing rates decreased significantly over the years from 53.7% in 2008, and 45.5% in 2010 to 38.6% in 2013 ($p=0.032$). The most common cause for antibiotic prescription was respiratory tract infections (RTIs). For most RTI diagnoses there was a decrease in prescription rate from 2008 to 2013, particularly for the age group 0-6 years. The frequency in antibiotic prescribing varied greatly between different primary healthcare centres. Phenoxymethylpenicillin (PcV) was the antibiotic most often prescribed, followed by tetracycline. Tonsillitis and acute otitis media were the two RTI-diagnoses with the highest number of prescriptions per 1000 patient years (PY). For these diagnoses an increase in adherence to national guidelines was seen, with regards to treatment frequency, choice of antibiotics and use of rapid antigen detection test.

Conclusions: Falling numbers of consultations and decreased antibiotic prescription rates for RTIs have reduced the antibiotic use in Swedish primary care substantially. Overprescribing of antibiotics could still be suspected due to large variability in prescribing frequency, especially for acute bronchitis and sinusitis. Continuous analysis and feedback on antibiotic prescribing is important in order to achieve a more prudent antibiotic use.