

Indications for systemic fluoroquinolone therapy in Europe and prevalence of primary care prescribing in France, Germany and the UK: descriptive population based study

Background and Objectives

In the United States the benefit-risk profile of fluoroquinolones for treating patients with acute bacterial sinusitis, acute bacterial exacerbation of chronic bronchitis, and uncomplicated urinary tract infections (uUTI) is considered unfavorable. However, the number of fluoroquinolone products in the EU indicated and prescribed for these infections is uncertain. The objective was to provide data on indications for fluoroquinolones in Europe and examine the prevalence of prescribing in France, Germany and the UK.

Method

Descriptive analysis of indications for systemic fluoroquinolone antibiotic across the European Economic Area (EEA) and descriptive analysis of systemic fluoroquinolone antibiotic prescribing in France, Germany and UK electronic health records (2000-2015).

Results

All EEA countries had fluoroquinolone products indicated for acute sinusitis, acute bronchitis or uUTI, with differences in the number of products between countries for: acute sinusitis (19.5%-51.9%); acute bronchitis (22.2%-73.4%); and uUTI (52.0%-89.1%). The prevalence of fluoroquinolone prescribing for the treatment of respiratory tract infections (RTI) appeared to fall with time in all countries and for UTI in France and UK only. Changes were greatest in the UK. In France, Germany and the UK respectively: acute sinusitis accounted for 29.5%, 20.6% and 40.7% of all oral fluoroquinolone prescriptions for upper RTIs; acute bronchitis accounted for 63.0%, 83.0% and 89.9% of all fluoroquinolone prescriptions for lower RTIs; uUTI accounted for 83.3%, 89.9%, 32.2% of all fluoroquinolone prescriptions for UTIs.

Conclusion

Large numbers of fluoroquinolone products in Europe are listed for the treatment of milder infections such as acute bronchitis, acute sinusitis and uUTI. Among the countries assessed, fluoroquinolones were commonly prescribed for these conditions and potentially should lead to a review of therapeutic guidelines.