Women prescribed more antibiotics than men

A review published today (Monday) in the *Journal of Antimicrobial Chemotherapy*, has found that, on average, women are 27 per cent more likely than men to be prescribed certain types of antibiotics. The study was financed from the German Centre for Infectious Diseases in collaboration with the ESCMID (European Society of Clinical Microbiology and Infectious Diseases) Parity Commission.

The systematic review and meta-analysis includes eleven studies worldwide, with a total of 44,333,839 individuals, which uses data from prospective national or regional surveillance of community pharmacy, insurance or national healthcare systems. Information from the studies such as country, year of study, antibiotic prescription, and reason for prescription was collated and entered into standardised forms in order for it to be analysed. The eleven studies hail from the UK, New Zealand, Spain, Sweden, Belgium, Italy, Israel, Denmark, and Germany.

Overall, women are 27 per cent more likely to receive a prescription for antibiotics, with this increasing to 36 per cent in women aged between 16 and 34; and 40 per cent in women aged between 35 and 54. The antibiotics with the highest gender differences are cephalosporin and macrolides, which are commonly used for respiratory tract infections (RTIs). For quinolones, commonly used to treat urinary tract infections, no substantial difference between genders was observed. Co-author of the review, Professor Evelina Tacconelli, comments:

“Physicians should keep in mind the risk of gender inequality of antibiotic prescription. Our results could play an influential role in designing antibiotic stewardship programs that address reasons for gender inequality in prescription.”

A spokesperson from ESCMID also notes that: “The study provides further evidence of the complexity of antibiotic prescribing that is far from being rational and evidence based. The results suggest that the process of prescribing could be influenced not only by the physician’s knowledge and beliefs but also the attitude of the patients. Genetic difference as well as methodological issues of reporting antibiotic usage should certainly be further explored.”

The review concludes that current evidence on infectious-disease epidemiology cannot fully explain the substantial gender difference in antibiotic prescription, but suggests that social and behavioural factors and genetic gender differences could be factors.

ENDS

Notes to editors

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“Gender differences in antibiotic prescribing in the community: a systematic review and meta-analysis”; Wiebke Schroder, Harriet Sommer, Beryl Primrose Gladstone, Federico Foshi, Jenny Hellman, Birgitta Evengard, and Evelina Tacconelli; *Journal of Antimicrobial Chemotherapy* - doi: 10.1093/jac/dwk054

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