

Safety of reducing antibiotic prescribing in primary care: a mixed-methods study

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Plain English summary

Reducing primary care antibiotic prescribing

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Plain English summary

Infections are becoming more resistant to treatment by antibiotics. This could be because antibiotics are being prescribed too frequently. Therefore, we need to make sure that antibiotics are prescribed only when they are really needed. Not all infections need antibiotic treatment. We currently do not know what level of antibiotic use in general practice is appropriate and safe. This research aimed to understand more about the safety of reducing antibiotic prescribing in general practice. We interviewed general practitioners and nurses, who told us that they were concerned about the risks of both prescribing and not prescribing antibiotics. They were particularly concerned about sepsis, a severe form of infection that is becoming more common. We also interviewed patients, who told us that they were concerned about problems of antibiotic resistance and the side effects of antibiotics. We also analysed primary care patient electronic health records. We found that infection consultations were poorly recorded, and in two out of five cases there was no reason coded for issuing an antibiotic. We investigated whether or not general practices that prescribe antibiotics more frequently have lower risks of infection complications, but there was no evidence of this. Using electronic health records data, we assessed the risk of serious infections after general practice consultations. We found that sepsis was most likely for older people, for people with frailty or after consultations for urinary tract infection (including cystitis). Kidney infections were likely in younger women and peritonsillar abscesses after respiratory consultations (including sore throats) were likely in young men. Other infection complications were infrequent. We built a website with interactive web pages that general practitioners could use to identify groups of patients in whom antibiotic prescribing can be more safely avoided.

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