

Publication

Antibiotic prescription monitoring and feedback in primary care in Switzerland: Design and rationale of a nationwide pragmatic randomized controlled trial.

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Antibiotic consumption is highest in primary care, and antibiotic overuse furthers antimicrobial resistance. In our recently published pilot-RCT, we used monthly aggregated claims data to provide personalized antibiotic prescription feedback to general practitioners (GPs). The pilot-RCT has shown that personalized prescription feedback is a feasible and promising low-cost intervention to reduce antibiotic prescribing. Here, we describe the rationale and design of the follow-up RCT with 3426 GPs in Switzerland. We now have access to pseudonymized patient-level data from routinely collected health insurance data of the three largest health insurers in Switzerland.; 1713 GPs randomized to the intervention group received once evidence-based treatment guidelines at the beginning, including region-specific antibiotic resistance information from the community and personalized feedback of their antibiotic prescribing, followed by quarterly personalized prescription feedback for two years. The first and the last mailings were sent out in December 2017 and September 2019, respectively. The 1713 GPs randomized to the control group were not notified about the study and they received no guidelines and no prescription feedback. The personalized prescription feedbacks and the analyses of the primary and secondary outcomes are entirely based on pseudonymized patient-level data from routinely collected health insurance data. The primary outcome is prescribed antibiotics per 100 patient consultations during the second year of intervention. The secondary outcomes include antibiotic use during the entire two-year trial period, use of broad-spectrum antibiotics, hospitalization rates (all-cause and infection-related), and antibiotic use in different age groups. If the feedback intervention proves to be efficacious, the intervention could be continued systemwide.; The trial is publicly funded by the Swiss National Science Foundation (SNSF, grant number 407240_167066). The trial was approved by the ethics committee "Ethikkommission Nordwest- und Zentralschweiz" (EKNZ Project-ID 2017-00888). Results will be disseminated in peer-reviewed journals and international conferences.

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