

# Written 'report card' decreases dentists' antibiotic prescriptions

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Dentists are less likely to prescribe antibiotics after they receive a personalised report detailing their past prescription rates, according to a randomised controlled trial of UK dentists published in *PLOS Medicine*, by Linda Young, NHS Education for Scotland, UK, Jan Clarkson, University of Dundee and Craig Ramsay, Health Services Research Unit, University of Aberdeen, and colleagues.

Dentists prescribe about 10 percent of the [antibiotics](#) dispensed in UK community pharmacies. Previous studies have found that, despite clear clinical guidelines, they often prescribe antibiotics in the absence of clinical need. To test an "audit and feedback" intervention to reduce these inappropriate prescriptions, the RAPiD (Reducing Antibiotic Prescribing in Dentistry) trial relied on dental prescribing and treatment claim data that was already routinely collected by the National Health Service. The researchers randomly assigned all 795 antibiotic prescribing general dentist practices in Scotland (a total of 2566 [dentists](#)) to either receive or not receive a graph plotting their monthly antibiotic prescribing rate. A random subset of practices in the [intervention group](#) also received a written behaviour change message reiterating national recommendations.

At the start of the trial, the total number of antibiotics prescribed per 100 NHS treatment claims was 8.3 in the [control group](#) and 8.5 in the intervention group. Over the 12 months following the start of the intervention, dentists in the control group practices prescribed antibiotics at a rate of 7.9 per 100 claims, and dentists in the intervention group

practices at a rate of 7.5, representing a 5.7% reduction in antibiotic prescriptions in the intervention group relative to the control group. Furthermore, dentists who received a written behaviour change message had an even greater reduction, of 6.1% relative to intervention dentists who did not receive this message.

While the findings suggest that providing individualised graphical feedback derived from routinely collected data can reduce the antibiotic prescribing rate of dentists, it was not possible to evaluate the impact on the quality or appropriateness of dentists' [antibiotic prescribing](#) in this study.

"The feedback provided in this study is a relatively straightforward, low cost public health and patient safety intervention that could potentially help the entire healthcare profession address the increasing challenge of antimicrobial resistance," the authors say.

**More information:** Elouafkaoui P, Young L, Newlands R, Duncan EM, Elders A, Clarkson JE, et al. (2016) An Audit and Feedback Intervention for Reducing Antibiotic Prescribing in General Dental Practice: The RAPiD Cluster Randomised Controlled Trial. *PLoS Med* 13(8): e1002115. [DOI: 10.1371/journal.pmed.1002115](https://doi.org/10.1371/journal.pmed.1002115)

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