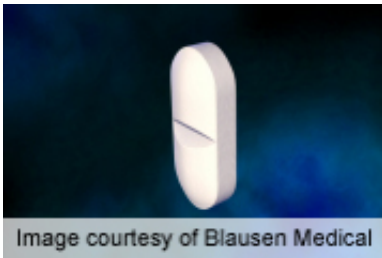


# High penicillin prescribing could build reservoirs of resistance

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(HealthDay)—High penicillin G prescribing may lead to an altered level of resistance in the commensal viridans group streptococci (VGS) population, which may be important in subsequent horizontal gene transfer events, according to a study published online Jan. 21 in the *Journal of Clinical Pharmacy and Therapeutics*.

Colin E. Goldsmith, M.B., B.Ch., from Belfast City Hospital in the United Kingdom, and colleagues examined the prescribing practices in general practice and their impact on antibiotic [resistance](#). Sixty-five patients seen in general practice by high and low prescribers of oral [antibiotics](#) were enrolled in the study. VGS were collected from the nasal passages and oropharynx region of patients and tested for antibiotic resistance.

The researchers found that the minimum inhibitory concentrations did

not differ significantly between high and low general practice prescribers with doxycycline ( $P = 0.094$ ), erythromycin ( $P = 0.122$ ), ofloxacin ( $P = 0.193$ ), and levofloxacin ( $P = 0.058$ ). With regard to penicillin, there was a significant difference between high and low general practice prescribers ( $P = 0.031$ ).

"This finding is important as the  $\beta$ -lactams are the most commonly prescribed oral antibiotic in the community," the authors write. "High prescribing practices may lead to an altered (higher) level of resistance to these agents in the commensal VGS population, which may be important as reservoirs of [antibiotic resistance](#) determinants in subsequent [horizontal gene transfer](#) events, particularly with newly colonizing pathogens, including pneumococci."

**More information:** [Abstract](#)  
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