

Comparison of dental antibiotic prescribing between Australia, England, the United States and British Columbia in 2017

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INTRODUCTION

- Resistance is driven by use of antibiotics.
- Dentists overprescribe antibiotics for therapeutic and prophylactic indications (by 80% in some studies).^{1,2,3}
- Dental prescribing accounts for an estimated 10% of worldwide antibiotic prescribing.⁴
- Understanding variation provides insights to target antibiotic stewardship interventions⁵

OBJECTIVES

To compare antibiotic prescribing rates by dentists in Australia, England the United States (US) and British Columbia (Canada) for 2017.

METHODS

- Population-level data for each country in 2017:
- Australia: Pharmaceutical Benefits Scheme
- England: NHS Digital Prescription Cost Analysis
- United States: IQVIA Longitudinal Prescription data (LRx)
- British Columbia (BC) Ministry of Health, PharmaNet Statistical analysis:
- Chi square or Fisher's exact tests was used for significant differences in proportions; p<0.05 was considered significant
- Results were reported with Poisson exact confidence intervals as appropriate

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RFSUITS

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73		Australia	England	United States	British Columbia
65	Total number of antibiotics	816,143	2,977,430	23,593,537	312,947
	Prescribing rate: r	10. prescriptic	or o		
	Amoxicillin	21.3	35.2	44.9	46.3
	Clindamycin	1.7	0.3	10.4	8.1
	Metronidazole	4.4	15.2	0.6	1.8
	Relative proportio	ns of each an	tibiotic by country	/ (%)	
	Total penicillins*	77.0	66.8	74.3	80.5
	Clindamycin^	5.1	0.5	14.3	12.4
ID UNITED BRITISH STATES COLUMBIA	Metronidazole^	13.2	28.4	0.9	2.8
	*p=0.147; ^p<0.001				

CONCLUSIONS

Wide variation exists in rates of prescribing and types of dental antil

Dentists in Australia were found to have prescribed at relatively low Clindamycin was used more often in BC and the US. Metronidazole

 Significant opportunity exists for the global dental community to con efforts to tackle antibiotic resistance by optimising prescribing. Further research should be directed to understanding country-specified #895486

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