**Title**

Antibiotic prescribing by general practice registrars for acute respiratory tract infections: characteristics associated with different strategies used.

**Author and affiliations**

Andrew Davey, University of Newcastle, GP Synergy

Mieke van Driel, University of Queensland

Paul Glasziou, Bond University

Katie Mulquiney, GP Synergy

Amanda Tapley, GP Synergy

Anthea Dallas, University of Tasmania

Josh Davis, Menzies School of Health Research

Parker Magin, University of Newcastle, GP Synergy

**Background**

Antibiotics are overused in Australia for most non-pneumonia acute respiratory tract infections (ARTIs) despite evidence-based guidelines recommending strongly against their overuse. Two strategies shown to reduce antibiotic consumption in the community are ‘no prescribing’ and ‘delayed prescribing’. This project previously showed that general practice (GP) registrars use ‘no prescribing’ and ‘delayed prescribing’ significantly more than qualified general practitioners (GPs). It is not known why this might be.

**Aims**

To determine the associations of antibiotic prescribing strategies used by GP registrars during consultations for ARTIs.

**Method**

A cross-sectional analysis of the Registrar Clinical Encounters in Training (ReCEnT) cohort study;

GP registrars from three states each collected data relating to 60 consecutive patient encounters during each of three 6-monthly training terms from 2016 to 2017. This included recording the antibiotic prescribing strategy used during consultations. We will use multivariable logistic regression within a generalised estimating equations framework (to account for repeated measures within registrar) to determine the associations of ‘no prescribing’, ‘delayed prescribing’ and ‘immediate prescribing’ for new ARTIs (upper respiratory tract infection, acute bronchitis, sore throat, otitis media, acute sinusitis).

**Results**

7,471 new ARTIs will be analysed. For URTI ‘delayed prescribing’ was used in 5% of consultations, ‘no prescribing’ in 91%. For acute bronchitis: 11% ‘delayed’ and 32% ‘no prescribing’. For acute sinusitis 16% ‘delayed’ and 38% ‘no prescribing’. For sore throat 13% ‘delayed’ and 41% ‘no prescribing’. For otitis media 22% ‘delayed’ and 26% ‘no prescribing. Multivariable logistic regression results will be reported at the conference.

**Conclusion**

‘Delayed prescribing’ and ‘no prescribing’ strategies are used more often by GP registrars than by qualified GPs. Using multivariable logistical regression to understand the associations of this outcome may help efforts to improve stewardship of antibiotics in our community.