

P07

PENICILLIN DE-LABELLING IN TERTIARY CARE CLINICS: SAFE AND EFFICACIOUS BUT INCOMPLETE EFFECTIVENESS?

Jack Bourke¹, Rebecca Pavlos², Peter Hollingsworth³,

Andrew McLean-Tooke³, Naoko Horimoto³, Vicky O'Brien³,

Esther Edward³, Elizabeth Phillips^{1,2,3}

1Dept of Clinical Immunology, Royal Perth Hospital, Perth, Australia,

2Institute for Immunology & Infectious Diseases, Murdoch University,

Perth, Australia, 3Dept of Clinical Immunology, Sir Charles Gairdner

Hospital, Perth, Australia

Introduction: Of the 10–15% of the population labelled as penicillin allergic, ≤10% are truly allergic. We examined the safety, efficacy and post-testing utility of strategies to de-label clinically diagnosed penicillin allergy.

Methods: Records of skin testing (ST) and oral challenges (OC) performed between June 2008–June 2012 were reviewed. Intradermal ST was performed with PPL/MDM (DAP, Diater, Spain), benzylpenicillin, flucloxacillin, amoxicillin, cephazolin and ceftriaxone. OC with penicillin VK was done if ST negative or selectively positive with follow-up OC to other beta-lactams. Telephone follow-up aimed to determine patient perception of post-testing recommendations and antibiotic exposure.

Results: 48/294 (16.3%) patients tested had a positive ST to ≥1 ST determinant. 16/48 (33.3%) had a positive reaction to either benzylpenicillin or PPL/MDM but not both. 17/48 (35%) patients were ST positive to a single beta-lactam determinant with negative tests to benzylpenicillin, PPL and

MDM. 2/237 (0.8%) patients who underwent penicillin VK challenge had mild positive reactions despite negative ST (NPV 99.1%). To-date 247/294 (84%) of penicillin allergy labelled patients have been recommended to tolerate ≥ 1 beta-lactam antibiotic with some OCs still pending. 143/294 (48.6%) of patients were contacted a median of 21 months following testing of which 49/143 (34.3%) had tolerated a complete course of a beta-lactam antibiotic. Overall 16/16 (100%) of ST positive versus 61/117 (52%) of ST negative patients contacted were following specific post-testing recommendations ($p < 0.001$), and this discrepancy was largely driven by reservation by the patient and/or their GP.

Conclusions: ST/OC is a safe and efficacious way of de-labelling patients with a clinical history of penicillin allergy. Use of multiple ST determinants maintains a high NPV and identifies those with a selective beta lactam allergy who may benefit from further OC to clarify their tolerance of other betalactams. Imperfect adherence to post-testing recommendations suggests a need for better reporting and follow-up communication with the patient and their primary physician.