

# The Long-term Impact of a Pharmacist-Led Antimicrobial Stewardship Penicillin Allergy Delabeling Ward Round



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### **Rationale and Aim**

Inpatient penicillin allergy is associated with negative patient, microbiological and health service outcomes (1).

We reviewed the long-term safety and antimicrobial stewardship (AMS) impacts of a pharmacist-led penicillin allergy delabeling ward round that has been embedded within an AMS service for more than three years.

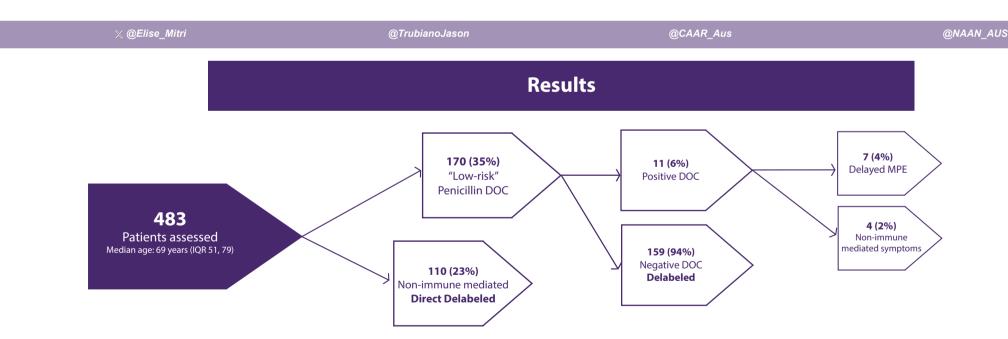
### **Methods**

Adult inpatients with a penicillin allergy were evaluated during a pharmacist-led AMS allergy ward round at Austin Health.

Using the validated Antibiotic Allergy Assessment Tool (2) and PEN-FAST clinical decision rule (3), patients with a low-risk penicillin allergy or PEN-FAST score < 3, were offered a single-dose direct oral challenge (DOC).

Inpatient antimicrobial prescribing was reviewed pre-allergy assessment, post-delabeling, and three months post-discharge.

## A pharmacist-led inpatient penicillin allergy delabeling ward round is safe and improves antimicrobial prescribing during inpatient admission and following discharge.



### Antibiotic use post-assessment and three months post-discharge

	Index admission (post-assessment)					
	Delabeled	non-Delabeled	OR (95% CI)	p-value		
Any penicillin	85 (30.5%)	3 (1.5%)	<b>26.87</b> (8.31, 86.87)	< 0.001		
Restricted antibiotics	38 (13.6%)	36 (17.6%)	<b>0.49</b> (0.28, 0.85)	0.012		

	Three months post-discharge						
	Delabeled	non-Delabeled	OR (95% CI)	p-value			
Any penicillin	37 (13.3%)	2 (1.0%)	<b>15.14</b> (3.59, 63.74)	< 0.001			
Restricted antibiotics	26 (9.3%)	16 (7.8%)	1.09 (0.56, 2.12)	0.795			

\*adjusted for antibiotic prescribing pre-assessment
Restricted antibiotics: 3rd/4th generation cephalosporins, fluoroquinolones, glycopeptides, lincosamides, carbapenems

### Penicillin Prescribing

#### 30.5 30 30 28.0 25 25 20 20 17.6 15 15 13.7 13.3 13.6 10 10 8.6 5 1.5 1.0 0 Index Index Index Index 3 months (pre-assessment) (post-assessment) post Time point Time point

ace, mass, as oquino ones, g., cope, taes, messamees,





■ Not Delabeled



Delabeled

**Restricted Antibiotic Prescribing** 

eferences: Blumenthal et al. Lancet. Jan 2019 Devchand et al. JACI-IP. March 2019 Trubiano et al. JAMA Intern Med. May 2020

■ Not Delabeled

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