



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



Elise A Mitri^{1,2,3,4}, Sara Vogrin¹, Ana-Maria Copaescu^{1,5}, Jamie Waldron^{1,6}, Fionnuala Cox¹, Misha Devchand^{1,4}, Kyra YL Chua^{1,2}, Rebecca Hall¹, Kerryn McInnes¹, Gemma K Reynolds¹, Natasha E Holmes^{1,2}, Jason A Trubiano^{1,2,4}

1. Centre for Antibiotic Allergy and Research, Department of Infectious Diseases and Immunology, Austin Health, Victoria, Australia; 2. Department of Infectious Diseases, The Peter Doherty Institute for Infection and Immunity, University of Melbourne, Victoria, Australia; 3. Department of Pharmacy, Austin Health, Victoria, Australia; 4. National Allergy Centre of Excellence (NACE), hosted by the Murdoch Children's Research Institute, Parkville, VIC, Australia; 5. Department of Medicine, McGill University Health Centre, Montreal, Canada; 6. Department of Medicine, Division of Rheumatology, Allergy and Immunology, Massachusetts General Hospital, Boston, USA

Rationale and Aim

- Inpatient penicillin allergy is associated with negative patient, microbiological and health service outcomes (1). The safety and effectiveness of pharmacist-led penicillin DOC programs in hospitalised patients has been described (2,3).
- This exploratory study aimed to evaluate 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 a tertiary referral health service in Melbourne, Australia.
- Using the validated Antibiotic Allergy Assessment Tool (4) and PEN-FAST decision rule (5), 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.

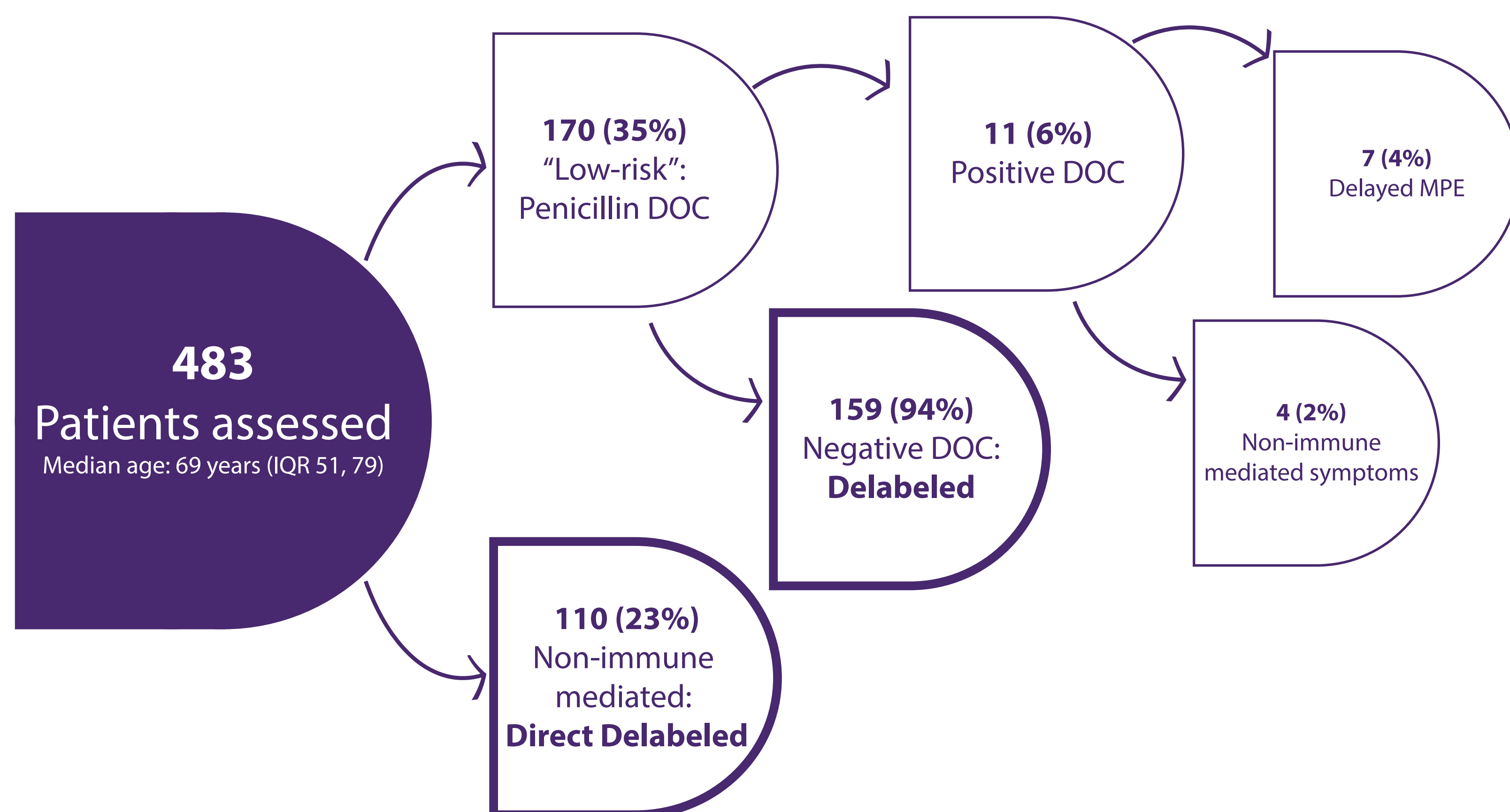
@Elise_Mitri

@TrubianoJason

@CAAR_Aus

@NAAN_AUS

Results

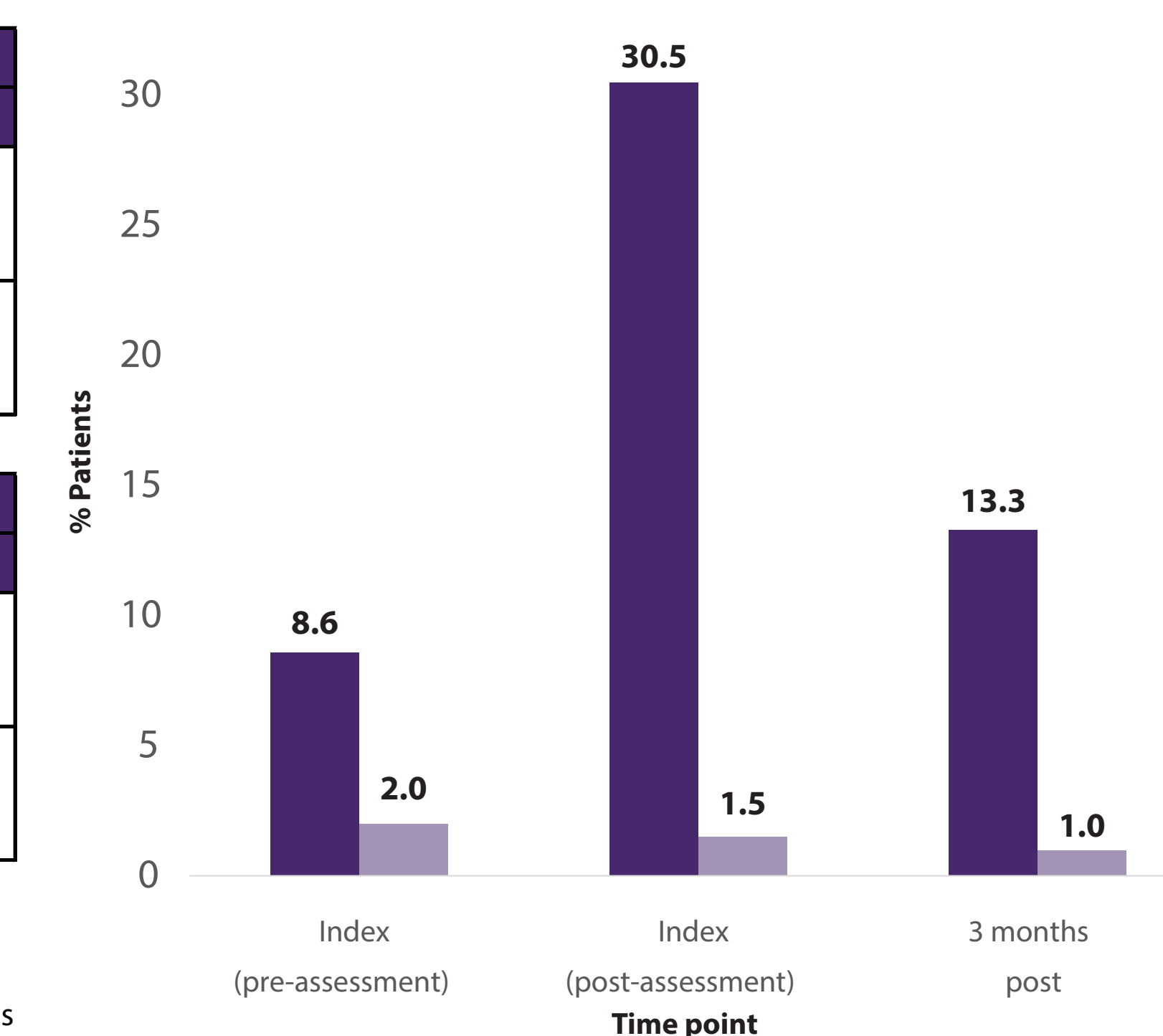


Antibiotic use post assessment and three months post discharge*

	Index admission (post-assessment)			
	Delabeled	non-Delabeled	OR (95% CI)	p-value
Any penicillin	85 (30.5%)	3 (1.5%)	26.87 (8.31, 86.87)	< 0.001
Restricted antibiotics	38 (13.6%)	36 (17.6%)	0.49 (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%)	15.14 (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: 2nd/3rd generation cephalosporins, fluoroquinolones, glycopeptides, lincosamides, carbapenems

Penicillin Prescribing



Restricted Antibiotic Prescribing

