

RECONCILE: A multi-disciplinary survey of penicillin allergy delabelling and future pharmacist-led antibiotic allergy service delivery

Elise Mitri^{1,2,3,4}, Shanti Narayanasamy^{1,5,6}, Natasha E Holmes^{1,4}, Courtney Ierano^{4,7}, Jason A Roberts^{8,9}, Suran Fernando^{10,11}, Jason A Trubiano^{1,3,4}

Background

- Penicillin allergy is common and negatively impacts antimicrobial prescribing¹.
- There is an unmet demand for antibiotic allergy delabelling services in Australia².
- **PEN-FAST**, a validated clinical decision rule, can assist in identifying 'low-risk' penicillin allergies that can be delabelled via a direct oral challenge (DOC) procedure³.

'Low-risk' =
PEN-FAST score < 3



Aims

- To evaluate current penicillin allergy delabelling activity performed by multi-disciplinary Australian clinicians.
- To assess sentiment and barriers to non-allergist and pharmacist-led penicillin allergy delabelling programs.

Method

- Structured cross-sectional survey of Australian practicing allergist and non-allergist medical practitioners, nurses and pharmacists.
- Electronic survey distribution at an Australian Drug Hypersensitivity Symposium (May 2023) and via relevant professional organisations.
- Study period: 19 May – 1 July 2023.



Results

158 participants

- 31% pharmacists

85% perform penicillin allergy assessment and/or delabelling activities

- 28% pharmacists

96% believe DOC should be performed for inpatients with a low-risk penicillin allergy

63% strongly agree or agree that, following training, pharmacists could perform DOC in patients with a low-risk penicillin allergy

Fig 1: Sentiment towards independent discipline-led DOC

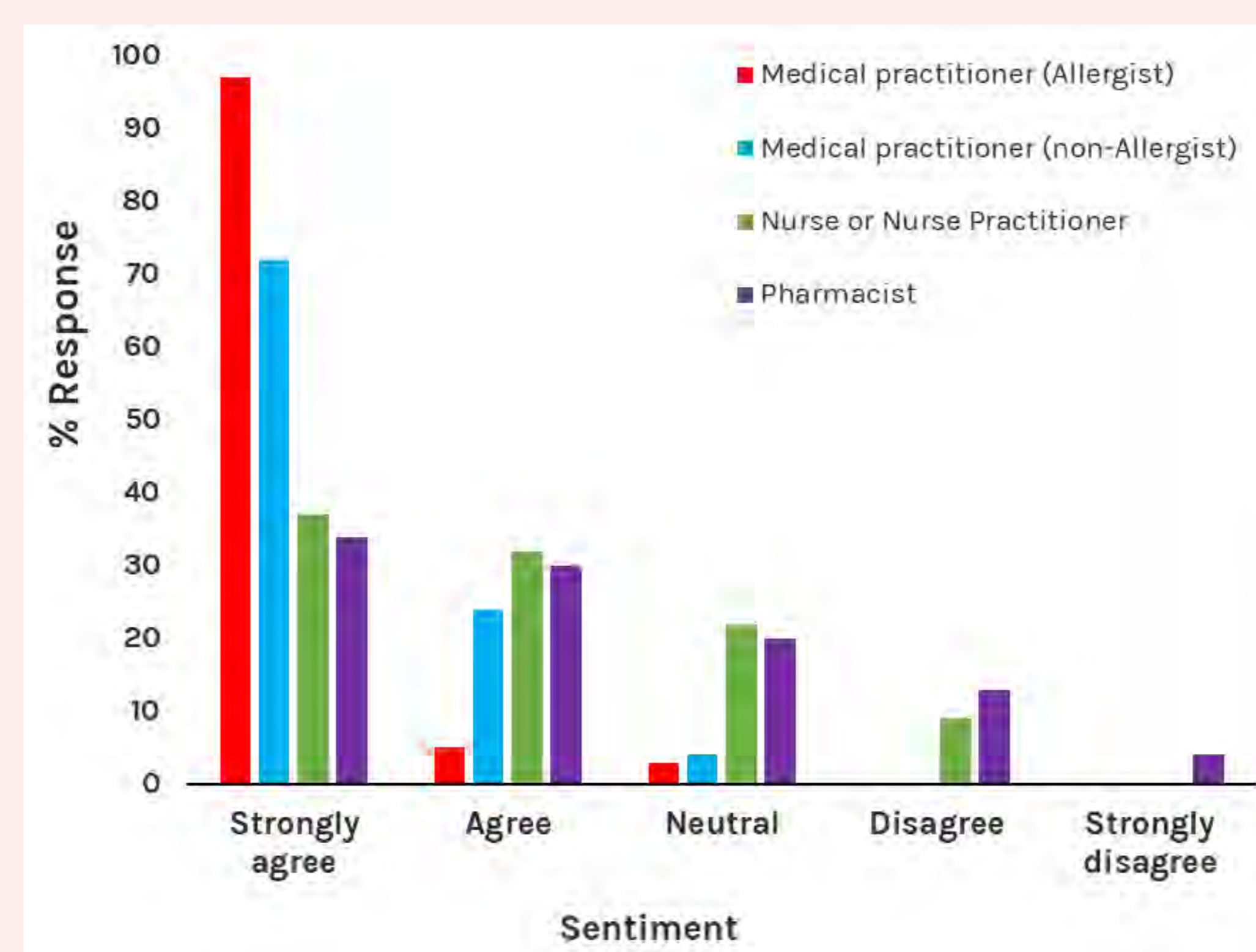
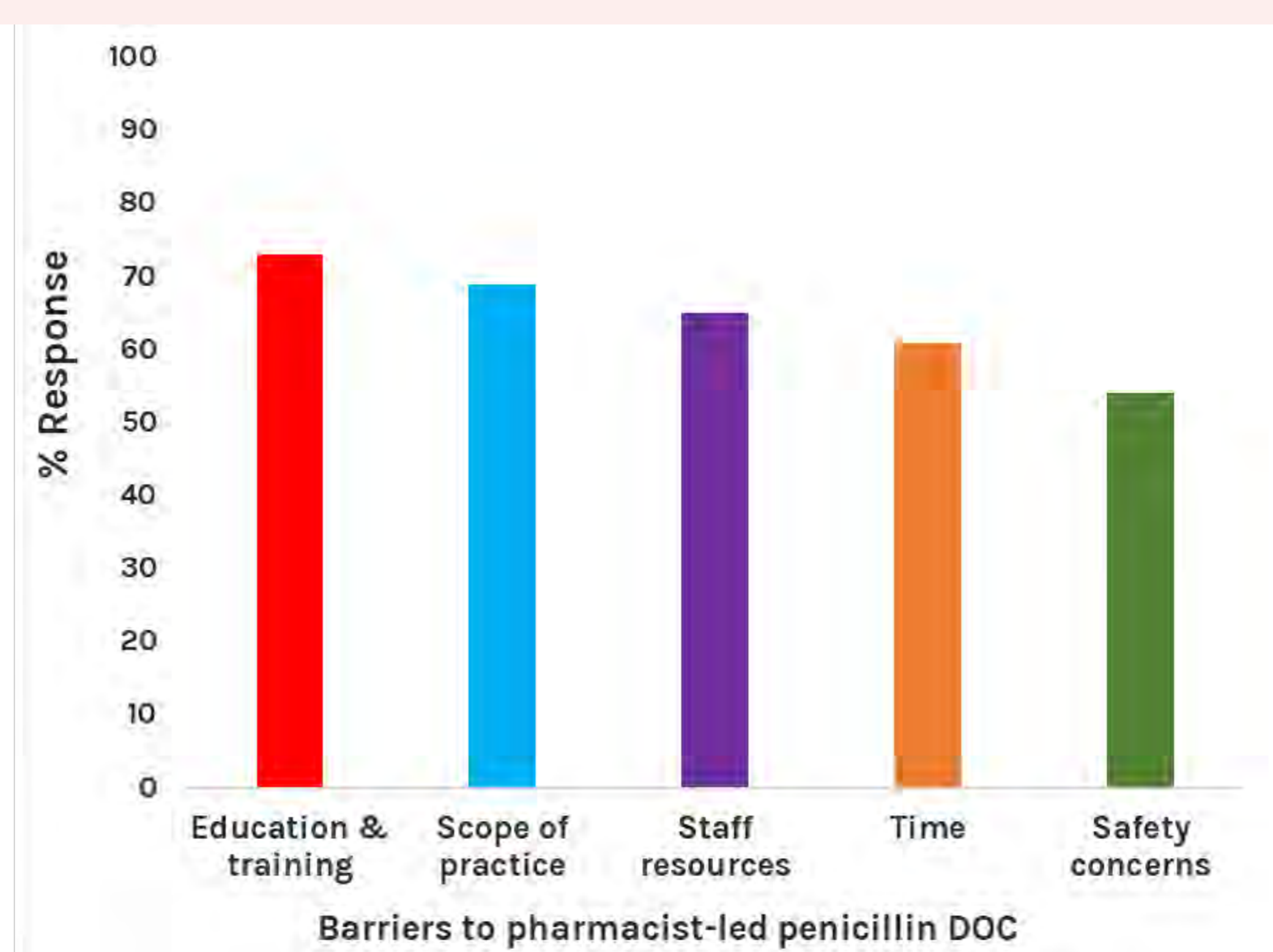


Fig 2: Top 5 barriers to independent pharmacist-led DOC



Discussion

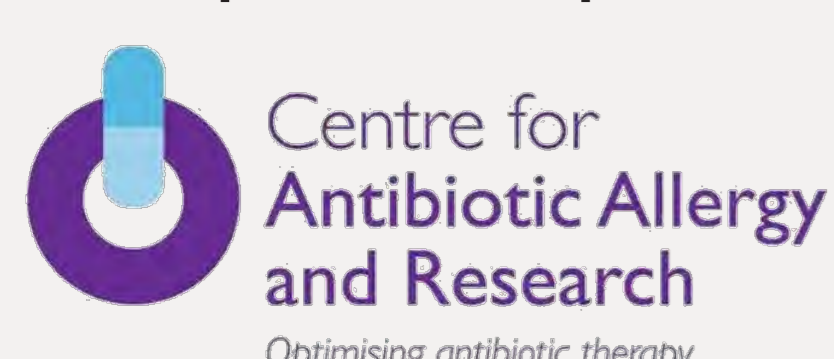
Addressing barriers to pharmacist-led inpatient 'low-risk' penicillin allergy delabelling, through structured, **credentialled training programs**, and **engagement of health service support**, may improve equity of access to antibiotic allergy delabelling pathways, optimisation of antimicrobial prescribing, and improved patient care, particularly in areas where access to Allergy/Immunology services is limited.

References

1. Blumenthal KG, Peter JG, Trubiano JA, Phillips EJ. Antibiotic allergy. *Lancet*. 2019 Jan 12;393(10167):183-198
2. Trubiano JA, Worth LJ, Urbancic K, Brown TM, Paterson DL; Australasian Society for Infectious Diseases Clinical Research Network; Lucas M; Australasian Society of Clinical Immunology and Allergy; Phillips E. Return to sender: the need to re-address patient antibiotic allergy labels in Australia and New Zealand. *Intern Med J*. 2016 Nov;46(11):1311-1317.
3. Trubiano JA, Vogrin S, Chua KYL, Bourke J, Yun J, Douglas A, Stone CA, Yu R, Groenendijk L, Holmes NE, Phillips EJ. Development and Validation of a Penicillin Allergy Clinical Decision Rule. *JAMA Intern Med*. 2020 May 1;180(5):745-752.

✉ elise.mitri@austin.org.au ✉ @Elise_Mitri

In partnership with:



1. Centre for Antibiotic Allergy and Research, Department of Infectious Diseases, Austin Health, VIC
2. Department of Pharmacy, Austin Health, VIC
3. National Allergy Centre of Excellence (NACE), hosted by the Murdoch Children's Research Institute, Parkville, VIC
4. Department of Infectious Diseases, The Peter Doherty Institute for Infection and Immunity, University of Melbourne, VIC
5. Duke Global Health Institute, Durham, NC, USA
6. Hubert-Yeargan Center for Global Health, Duke University, Durham, NC, USA
7. National Centre for Antimicrobial Stewardship, Department of Infectious Diseases, University of Melbourne, VIC
8. University of Queensland Centre for Clinical Research, Faculty of Medicine, The University of Queensland, QLD
9. Herston Infectious Diseases Institute (HeIDI), Metro North Health, QLD
10. Department of Clinical Immunology and Allergy, Royal North Shore Hospital, NSW
11. Faculty of Medicine and Health, University of Sydney, NSW