



The International Network of Antibiotic Allergy Nations (iNAAN): A Framework for Health Services Penicillin Allergy Research



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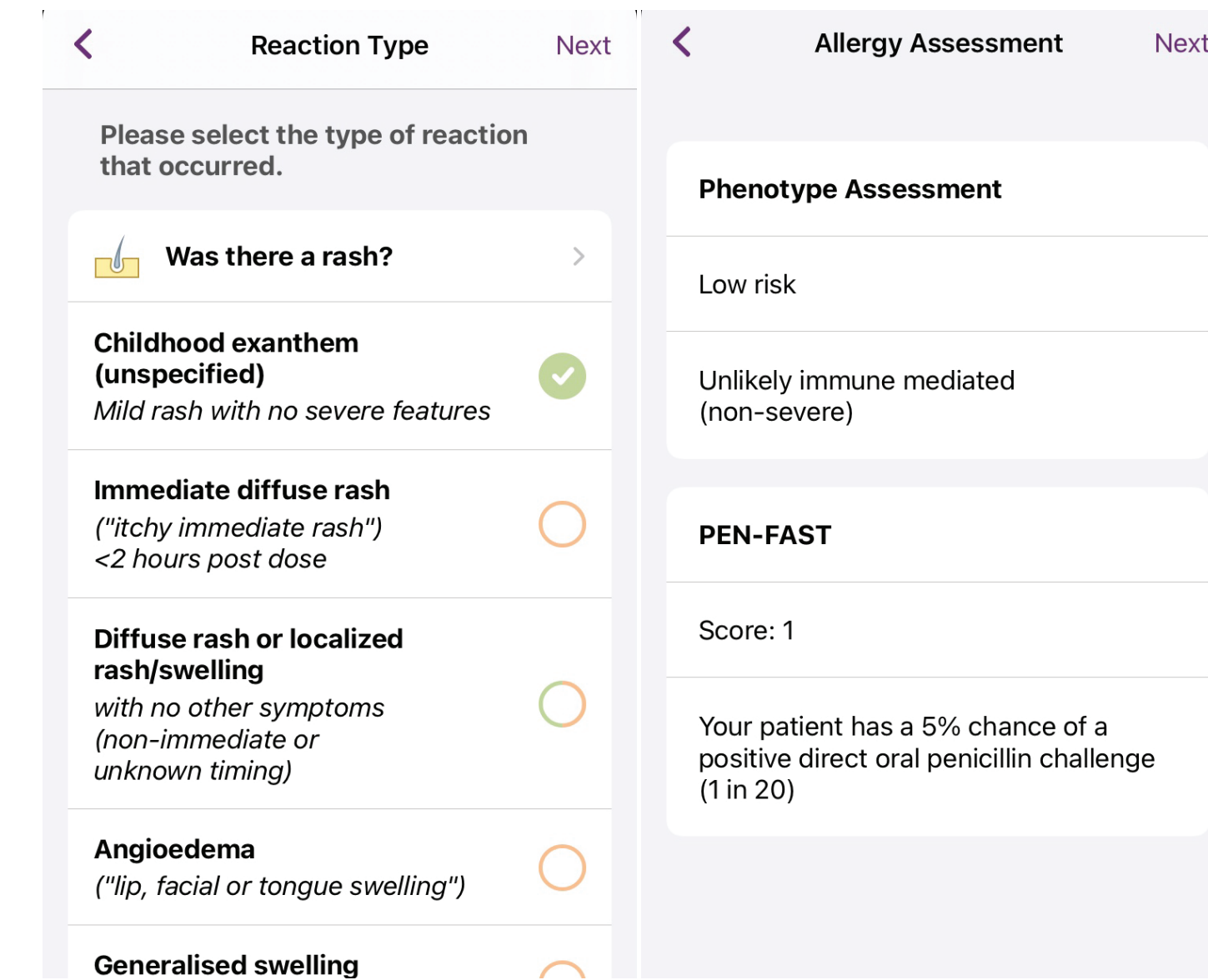
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Rationale and Aim

- Penicillin allergy is common yet access to antibiotic allergy services and resources, particularly in the inpatient setting, is limited (1).
- Multi-disciplinary led penicillin allergy delabelling by non-Allergists is safe and effective (2).
- The International Network of Antibiotic Allergy Nations (iNAAN) was established to examine clinical effectiveness and implementation outcomes of Australian and international multi-disciplinary led penicillin allergy delabeling health service programs.

Methods

- A digital point-of-care data surveillance tool ('NAAN App') embedded with a validated penicillin allergy assessment tool (3) and PEN-FAST (4) provides a framework for prospective audit of health service inpatient penicillin DOC programs.
- Digital audit and feedback to stakeholders examines clinical effectiveness (*number of penicillin DOC, antimicrobial prescribing impacts and hospital length of stay*), and implementation (*adoption, fidelity and sustainability*), outcomes.



The International Network of Antibiotic Allergy Nations (iNAAN) framework uses a digitally delivered penicillin allergy toolkit and clinician-focused digital audit and feedback to aid implementation and scaling of multi-disciplinary health service low-risk penicillin allergy delabeling programs.

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Results

Health Services

- 22 Health services activated
- 32 Health services pending

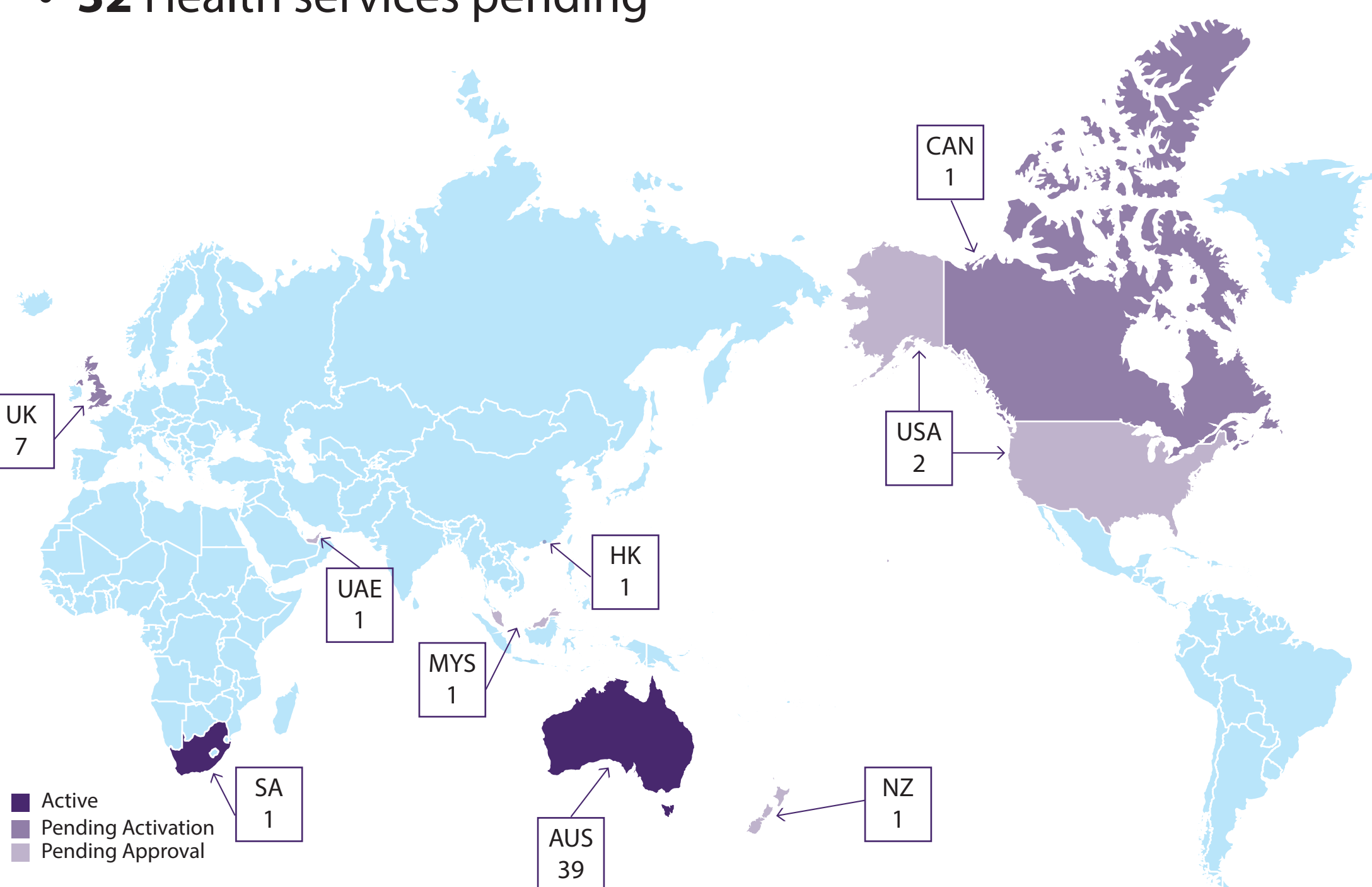


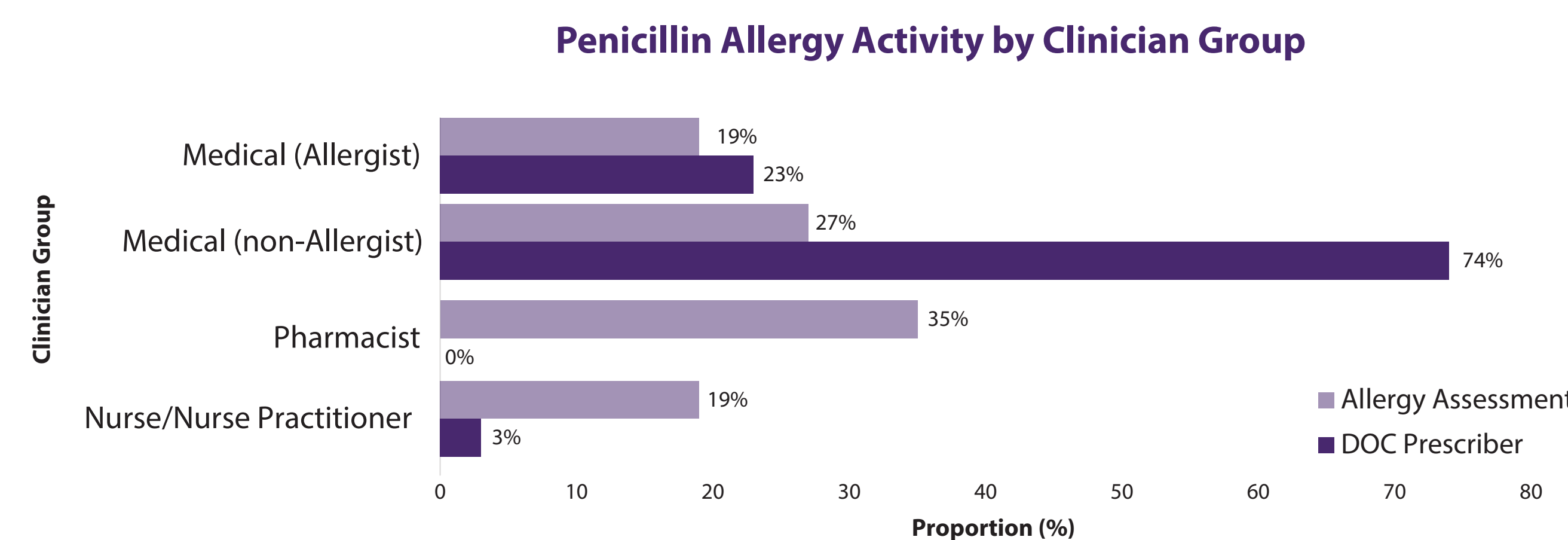
Figure 1: Health Service Enrolment (February 2024)

Multi-Disciplinary Clinicians

- 126 Clinicians
 - 20% Medical (Allergist)
 - 42% Medical (non-Allergist)
 - 28% Pharmacist
 - 10% Nurse/Nurse Practitioner

Participants

- 1096 penicillin allergy assessments
 - 79% PEN-FAST score < 3
- 383 penicillin DOC
 - 98% negative DOC



Implementation and Next Steps

- Digital audit and feedback enables health services and clinicians to examine the local clinical and implementation outcomes of penicillin DOC programs, with benchmarking capability.
- iNAAN is primed for data linkage to examine the impact of penicillin allergy on antimicrobial prescribing, antimicrobial resistance, and mortality.

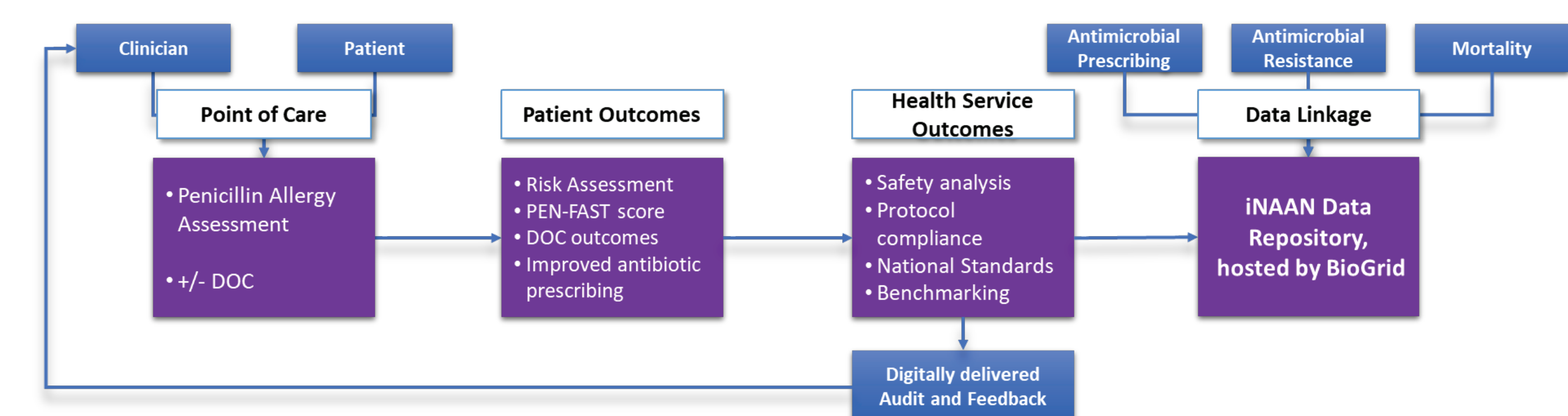


Figure 2: iNAAN Data Flow

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References:

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4. Trubiano J et al. JAMA Intern Med. March 2020