

# Penicillin Allergies: Legit or legacy?

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# Disclosure

No conflicts of interest to declare

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# Team acknowledgements

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Safer Care Victoria "Check Again" Team



# Antibiotic Allergies

- Up to 25% of hospital inpatients report an allergy to one or more antibiotics
  - In Ballarat, 65% of the time this includes a penicillin allergy

**Less than 5% will be truly allergic**

**Attach ADR**

ALLERGIES & ADVERSE REACTIONS (ADR)

Nil  Unknown (tick appropriate box or complete details below)

Drug (or other)	React
penicillin	

Sign..... Print.....

**Attach ADR Sticker**

ALLERGIES & ADVERSE REACTIONS (ADR)

Nil  Unknown (tick appropriate box or complete details below)

Drug (or other)	Reaction/Date	Initials
morphine		
sulfas		
ketorolac		
some Abs? which		

Date 9/11

# Inaccurate antibiotic allergy labels

- 75% of labels applied early in childhood
- Causality between the antibiotic and reaction often uncertain

## No-risk penicillin “allergies”

Predictable side effects:

- Nausea, vomiting, diarrhoea

Family history allergy

Fear of penicillin

## Low risk penicillin “allergies”

Mild drug rash

Viral rash

Drug/virus interaction causing rash

## High risk penicillin allergies

Anaphylaxis

Severe skin reactions:

- Stevens-Johnson Syndrome

Kidney or liver injury

# Risks of inaccurate penicillin allergy labels

- Increased use of 2<sup>nd</sup> and 3<sup>rd</sup> line antibiotics
  - Patients may receive less effective antibiotics
  - Increased health resource utilisation
- Increased risk of antibiotic resistance
  - Public health risk

# Check Again Project



- Safer Care Victoria project
  - 13 sites throughout Victoria
  - Breakthrough series collaborative model
  - Pilot ward: Adult surgical ward
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# Check Again Project

**Aim:** Improve inpatient access to penicillin allergy assessment and testing (for low-risk penicillin allergies)

**Antibiotic allergy assessment.** Ensure 4 points of allergy information recorded in medical record (**medication, reaction, timing and severity**)

## No-risk allergy

Offer direct de-label from the medical record

## Low-risk allergy

Offer oral penicillin challenge

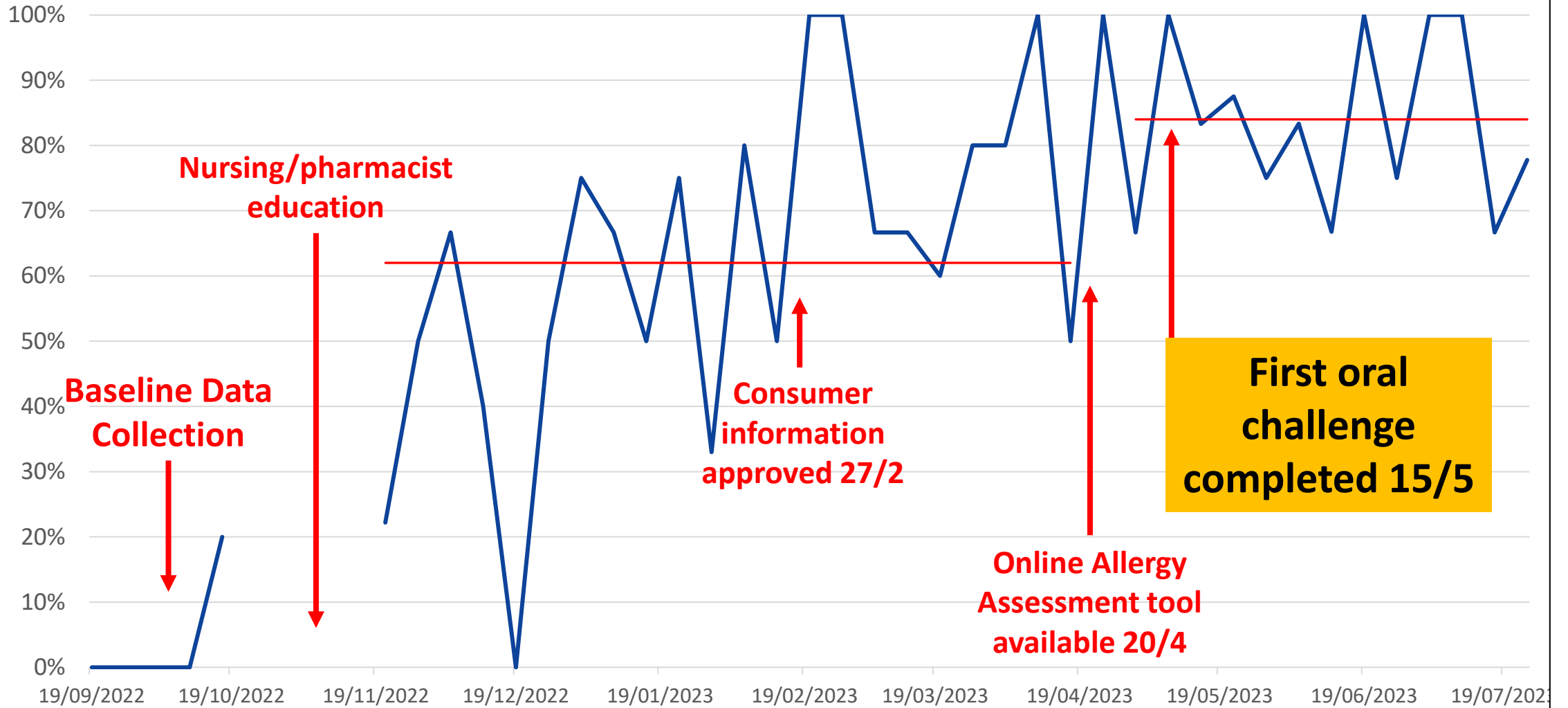
## High risk allergy

No intervention  
Ensures accurate allergy history

Provision of information on outcome of assessment/de-labelling to patient and GP



# Documentation of 4 Points of Allergy Information



# Results

152 patients identified with a penicillin allergy:

- Appropriate documentation increased to 84%
  - 66 patients identified since introduction of AAAT
    - 22 not suitable for de-labelling
    - 8 patients with no-risk allergy
      - 6 patients consenting to direct de-labelling
    - 23 patients with a low-risk allergy identified
      - 5 supervised oral challenges successfully completed
      - No reactions occurred
      - 80% of received a penicillin following oral challenge
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# The future...

- Oral challenges on all adult wards in Ballarat
  - Expand scope to Horsham and Stawell campuses
  - Pre-emptive de-labelling of patients likely to need antimicrobials:
    - Elective surgery
    - Oncology patients
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# Any questions?

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