

## Toolkit A Penicillin Allergy History

Patient ID/ Sticker:

Date of reaction: \_\_\_\_\_

Route of last administration:  Oral  Intravenous

### Reaction details (check all that apply):

#### Intolerance histories

- Isolated GI upset (diarrhea, nausea, vomiting, abdominal pain)  Chills (rigors)  Headache  Fatigue

#### Low-risk allergy histories

- Family history  Itching (pruritus)  
 Unknown, remote (> 10 yr ago) reaction  Patient denies allergy but is on record

#### Moderate-high risk allergy histories (potential IgE reactions)

- Anaphylaxis  Angioedema/swelling  Bronchospasm (chest tightness)  
 Cough  Nasal symptoms  Arrhythmia  
 Throat tightness  Hypotension  Flushing/redness  
 Shortness of breath  Rash  Syncope/pass out  
 Wheezing  
 Dizzy/lightheadedness

Type of rash (if known):

#### HIGH RISK: Contraindicated penicillin skin testing/challenge (potential severe non-immediate reactions)

- Stevens-Johnson syndrome (rash with mucosal lesions)  Serum sickness (rash with joint pain, fever, myalgia)  Thrombocytopenia  Fever  
 Organ injury (liver, kidney)  Erythema multiforme (rash with target lesions)  Dystonia  Anemia  
 Acute generalized exanthematous (rash with pustules)  Drug reaction eosinophilia and systemic symptoms (rash with eosinophilia and organ injury)

### Other symptoms:

Patient ID/ Sticker:

### Timing/onset:

- Immediate (< 4 hrs)
- Intermediate (4-24 hrs)
- Delayed (> 24 hrs)
- Unknown

### Treatment:

- None/penicillin continued
- Steroids (IV or PO)
- Penicillin discontinued
- Other:
- Antihistamines
- Epinephrine
- IV Fluids

### How long ago was the reaction:

- < 6 mo
- 6 mo-1 yr
- 2-5 yrs
- 6-10 yrs
- > 10 yrs
- Unknown

### Other beta-lactam use:

- Previous use of a penicillin or beta-lactam (prior to course that caused reaction)

If yes, please list drugs:

- Subsequent use of a penicillin or beta-lactam (after the course that caused a reaction)

If yes, please list drugs:

History taken by

Print name: \_\_\_\_\_ Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## Toolkit B

**Direct Oral Amoxicillin  
Challenge for Low-Risk Patients**Patient ID/ Sticker:  
  

Testing is not necessary if a penicillin class antibiotic has been tolerated since the index reaction

**DO NOT perform any penicillin allergy testing if there is a history of penicillin-associated:**

- Blistering rash
- Hemolytic anemia
- Nephritis
- Hepatitis
- Fever
- Joint pains

**Direct oral amoxicillin challenge can be performed in any patient with a history of the following symptoms associated with penicillin:**

- Isolated reactions that are unlikely allergic (e.g., gastrointestinal symptoms, headaches)
- Pruritus without rash
- Remote (>10 years) unknown reactions without features of IgE/immediate hypersensitivity
- May also be used for patients with a family history of penicillin allergy or benign somatic symptoms

**First penicillin skin test if:**

- The reaction was cutaneous
- The reaction had features of IgE/immediate hypersensitivity
- The patient currently has unstable or compromised hemodynamic or respiratory status or is pregnant with low risk allergy history.

**Proceed to amoxicillin challenge only if skin test is negative****Continue to second page**

Patient ID/ Sticker:

Ordered by: \_\_\_\_\_ Performed by: \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

Amoxicillin oral challenge given:  250 mg  500 mg

Time given: \_\_\_\_\_ Time observation end: \_\_\_\_\_

### Observed challenge reaction:

None

Yes, please list signs and symptoms:

Time to onset:

### Observed challenge reaction treatment given:

None

Yes, please list signs and symptoms:

### Delayed challenge reaction reported:

None

Yes, please list signs and symptoms:

Time to onset:

### Delayed challenge reaction treatment given:

None

Yes, please list signs and symptoms:

## Toolkit C

**2-Step Amoxicillin Challenge  
for Moderate-Risk Patients  
(Skin Testing Not Available)**Patient ID/ Sticker:  
  

Testing is not necessary if a penicillin class antibiotic has been tolerated since the index reaction



**Note that this testing is recommended only in locations without access to skin testing materials. This procedure should be performed only after careful consideration of the potential benefit to the patient in question, weighed against the risk of potential harm from an allergic reaction.**

**DO NOT perform any penicillin allergy testing if there is a history of penicillin-associated:**

- Blistering rash
- Hemolytic anemia
- Nephritis
- Hepatitis
- Fever
- Joint pains

**This testing is indicated if:**

- The reaction was cutaneous
- The reaction had features of IgE/immediate hypersensitivity
- The patient currently has unstable or compromised hemodynamic or respiratory status or is pregnant with low risk allergy history.

**This testing may also be used for low-risk reactions that include:**

- Remote (>10 years) unknown reactions without features of IgE
- Pruritus without rash
- Isolated reactions that are unlikely allergic (e.g., gastrointestinal symptoms, headaches)

**Continue to second page**

Patient ID/ Sticker:

Ordered by: \_\_\_\_\_ Performed by: \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

**1** Amoxicillin oral challenge given:  25 mg  50 mg

Time given: \_\_\_\_\_ Time observed:  30 min  60 min Time observation end: \_\_\_\_\_

**Observed challenge reaction:**

None  Yes, please list signs and symptoms: \_\_\_\_\_  
Time to onset: \_\_\_\_\_

**Observed challenge reaction treatment given:**

None  Yes, please list signs and symptoms: \_\_\_\_\_

**2** Amoxicillin oral challenge given:  250 mg  500 mg

Time given: \_\_\_\_\_ Time observed:  30 min  60 min Time observation end: \_\_\_\_\_

**Observed challenge reaction:**

None  Yes, please list signs and symptoms: \_\_\_\_\_  
Time to onset: \_\_\_\_\_

**Observed challenge reaction treatment given:**

None  Yes, please list signs and symptoms: \_\_\_\_\_

**Delayed challenge reaction reported:**

None  Yes, please list signs and symptoms: \_\_\_\_\_  
Time to onset: \_\_\_\_\_

**Delayed challenge reaction treatment given:**

None  Yes, please list signs and symptoms: \_\_\_\_\_

## Toolkit D

# Penicilloyl-Polylysine (PPL) Skin Testing Prior to Amoxicillin Challenge for Moderate Risk Patients

Patient ID/ Sticker:

**DO NOT perform any penicillin allergy testing if there is a history of penicillin-associated:**

- Blistering rash
- Hemolytic anemia
- Nephritis
- Hepatitis
- Fever
- Joint pains

**This testing is indicated if:**

- The reaction was cutaneous
- The reaction had features of IgE/immediate hypersensitivity
- The patient currently has unstable or compromised hemodynamic or respiratory status or is pregnant with low risk allergy history.

### Skin testing:

- Place test on arms.
- Place and read all puncture tests prior to placing any intradermal tests.
- Positive tests are defined as wheal  $\geq 5$ mm with flare  $>$  wheal.
- **Do not record test if saline control is positive or histamine control is negative**

Ordered by: \_\_\_\_\_ Performed by: \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

### 1 Prick/puncture

	Time placed:	Time read:	
		wheal	flare
PPL			
Penicillin G			
Negative control			
Positive control (histamine)			

### 2 Intradermal

	Time placed:	Time read:	
		wheal	flare
PPL			
Penicillin G			
Negative control			
Positive control (histamine)			

Continue to second page

### 3 Amoxicillin challenge

Ordered by: \_\_\_\_\_ Performed by: \_\_\_\_\_ Date: \_\_\_/\_\_\_/\_\_\_

Amoxicillin oral challenge given:  250 mg  500 mg

Time given: \_\_\_\_\_ Time observation end: \_\_\_\_\_

#### Observed challenge reaction:

None

Yes, please list signs and symptoms:

Time to onset:

#### Observed challenge reaction treatment given:

None

Yes, please list signs and symptoms:

#### Delayed challenge reaction reported:

None

Yes, please list signs and symptoms:

Time to onset:

#### Delayed challenge reaction treatment given:

None

Yes, please list signs and symptoms:



# E

## Toolkit E

# Sample Anaphylaxis and Adjunctive Medications for Ambulatory Environments

	Drug	Pediatric dosing	Adult dosing
<b>Intramuscular (IM) epinephrine</b>	Epinephrine 1 mg/mL (1: 1000)	<b>&lt;10 kg:</b> 0.1 mg <b>10-25 kg:</b> 0.15 mg <b>Children &gt;25 kg:</b> use Adult dosing	0.30 mg
<b>Antihistamines</b>	Diphenhydramine	1 to 2 mg/kg/dose (IM or PO); <b>Maximum:</b> 50mg/dose	25-50 mg
	Cetirizine	<b>6m to &lt;2 years:</b> 2.5 mg <b>2 to 5 years:</b> 2.5-5 mg <b>Children ≥6 years:</b> use Adult dosing	10-20 mg
	Fexofenadine	<b>2 to 11 years:</b> 30-60 mg <b>Children ≥12 years:</b> use Adult dosing	90-360 mg
	Ranitidine <sup>a</sup>	4 to 8 mg/kg; <b>Maximum:</b> 300 mg/day	150-300 mg/day
<b>Glucocorticoids</b>	Prednisone	1-2 mg/kg	20-60 mg
<b>Bronchodilators</b>	Albuterol inhaler	1 inhalation <b>Anaphylaxis:</b> 4-8 inhalations every 20 minutes for 3 doses	2 inhalations <b>Anaphylaxis:</b> 4-8 inhalations every 20 minutes for up to 4 hrs
	Albuterol nebulized	0.15 mg/kg (minimum dose: 2.5 mg) in 3 mL saline, inhaled via nebulizer  <b>&gt;12 years old:</b> use Adult dosing	2.5-5 mg every 20 minutes for 3 doses

Footnote: <sup>a</sup> H2 blocker