

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

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 ≥ 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:

Sample Anaphylaxis and Adjunctive Medications for Ambulatory Environments

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

Footnote: ^a H2 blocker