



### Background

- Only 4-9% of those...labeled [penicillin-allergic] are currently allergic. It is important to identify those who are not allergic, because children mislabeled as penicillin-allergic have more medical visits, receive more antibiotic prescriptions, and have longer hospitalizations with more antibiotic-related complications.<sup>1</sup>
- Up to 10% of children develop rashes while receiving antibiotics. Most are diagnosed...as allergic to the implicated antibiotic, and most continue to avoid the suspect antibiotic in favor of alternatives, which may be less effective, more toxic, and more expensive.<sup>2</sup>
- Do not label a patient as allergic to penicillin/amoxicillin unless he or she has true hives, anaphylaxis, or a life-threatening reaction. Please include photos of rashes in RAVEN.
- Please consult a pediatrician with any questions.

### Anaphylaxis

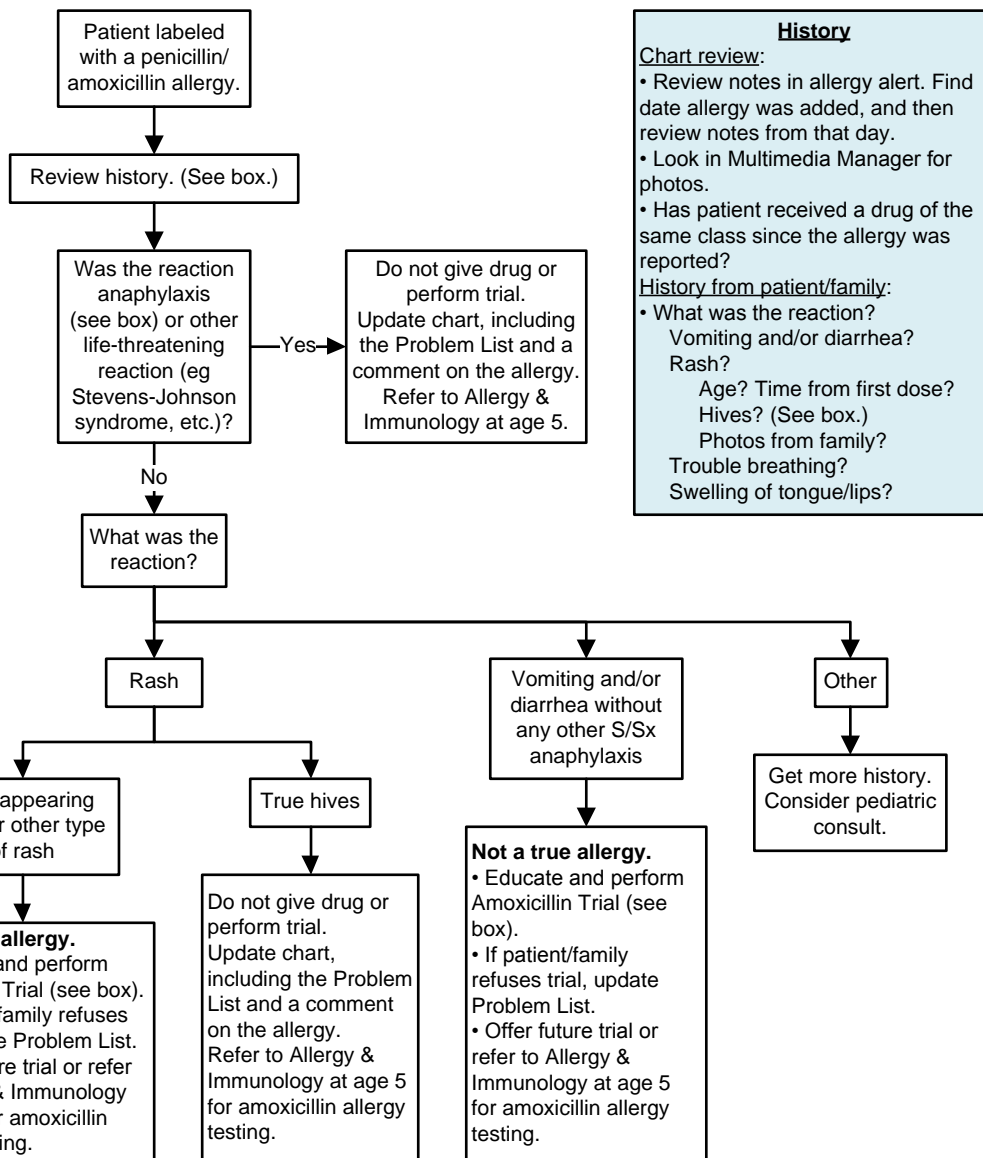
- Acute onset – several minutes to hours from exposure.
- Generalized hives, pruritis or flushing, swelling of lips/tongue/uvula, and at least one of the following:
  - Dyspnea, bronchospasm, stridor
  - Hypotension
  - Evidence of hypoperfusion of end-organs
  - Persistent crampy abdominal pain and/or vomiting

### Hives vs Viral Rash

- True hives are raised, itchy, larger than dime-sized, come and go, move around the body, and change shape and size.
- Keep in mind that many parents refer to any rash as "hives." Get a description every time.
- A viral exanthem is typically diffuse, fine, pinpoint red dots and can be dense, coalesced, larger raised lesions. The rash typically covers the face and chest but can cover the whole body. The rash typically worsens and takes days to clear.

### References

1. Kelso JM. "Provocation challenges to evaluate amoxicillin allergy in children." JAMA Pediatrics 2016;170(6):e160282.
2. Mill C, et al. "Assessing the diagnostic properties of a graded oral provocation challenge for the diagnosis of immediate and nonimmediate reactions to amoxicillin in children." JAMA Pediatrics. 2016;170(6):e160033.



### Amoxicillin Trial Procedure<sup>2</sup>

1. Obtain VS. Perform physical exam, including lung exam. Have appropriate dose of EpiPen or epinephrine available.  
Epinephrine (1 mg/mL): 0.01 mg/kg (or 0.01 mL/kg) IM q5-15 minutes.  
Per AAP recommendations:
  - 7.5-25 kg: use EpiPen Jr (0.15 mg)
  - ≥ 25 kg: use EpiPen (0.3 mg)
2. Calculate weight-based dose of amoxicillin. Give patient 10% of that dose.
3. Place patient in nearby room and instruct caregiver to notify staff of any changes in status.
4. If no reaction by 20 minutes, give patient remaining 90% of weight-based dose of amoxicillin.
5. Observe another 60 minutes. If no reaction, check VS and physical exam. If all stable, discharge home with regular course of drug.
6. Give patient and family amoxicillin trial education sheet.
7. Update allergy alert in RAVEN. Click the allergy in the banner. Right click over the drug name and choose "cancel." On the "reason" drop-down menu, choose "OK on Retrial."

This guideline is designed for the general use of most patients but may need to be adapted to meet the special needs of a specific patient as determined by the medical practitioner.  
Approved by MSEC 5/8/19.

If comments about this guideline, please contact Jane\_McClure@ykhc.org.