Penicillin (Amoxicillin) Allergy Delabeling Inpatient Clinical Pathway - Pilot

ATTENTION:

This pathway is a currently a pilot for Pediatric Hospital Medicine patients only. Please continue to check CT Children's Internet site for the most up-to-date version.

Inclusion Criteria (must have all of the following):

- Patients with his tory of benign cutaneous reaction without systemic symptoms that started >1 hour after penicillin-based medication or
 history not consistent with penicillin (PCN) allergy (i.e., family history of penicillin allergy or symptoms such as headache or diarrhea) and
- Stable on the med/surg floor and able to follow up with medical provider or Infectious Diseases (ID) if any reactions occur

Exclusion Criteria (any one of the following):

- Patient in critical or unstable condition
- · Patient not located on med/surg (e.g., PICU, ED)
- Patient received the following medications:
 - diphenhydramine within past 48 hours; 2nd generation antihistamine (e.g., loratidine, desloratadine, cetirizine, levocetirizine, fexofenadine) within past 5 days; H2 receptor blocks (e.g., famotidine) within past 24 hours; systemic steroids in past 2 weeks.
 - Note: montelukast + inhaled corticosteroids are not contraindications and may proceed with pathway
- Patients with current: rash, wheezing, supplemental oxygen requirement beyond baseline, inability to take oral medications, ongoing emes is

References:

- CDC PCN Allergy
 Allergy and Clinical
 Immunology Practice
 Guideline
- RN or resident will inform primary attending if patient may be eligible
- Attending to verify patient meets inclusion criteria for penicillin allergy delabeling challenge
- Contact on-call ID provider via Voalte if there are questions regarding inclusion/exclusion

History not Severe reaction Mild Reaction consistent with allergic reaction (i.e., hx of anaphylaxis, angioedema, (i.e., benign cutaneous reaction, such as (i.e., allergy listed d/t positive FHx of hypotension) or contraindication to drug urticaria) PCN allergy; symptoms, such as headache or challenge diarrhea, that are consistent w/known non-allergic adverse effects of antibiotics) Discuss process with patient/caregiver including potential reactions and medications utilized Obtain verbal informed consent May be treated with PCN. Recommend primary care provider Provide education on allergy vs. places referral for outpatient allergy adverse side effects to family Patient/caregive (consider Care Coordination outpatient consent obtained? Can consider observed drug challenge referral for suggestions)

²1-step drug challenge timing

if preferred by patient/family

Delabel the patient in Epic

- Does not have to be timed in relation to current antibiotic regimen patient is receiving.
- Does not have to wait until discharge and can be done sooner if patient meets criteria (e.g., taking enteral meds, not on supplemental oxygen)
- Utilize "Penicillin Allergy Delabeling" order set
- 1-step drug challenge
 - o Amoxicillin enterally 45 mg/kg x1 (max 500 mg/dose)
 - If clinically warranted: can use amoxicillin-clavulanate ES 45 mg/kg x1 (max 500 mg amoxicillin/dose) instead
 - Monitor for 1 hour post-administration
- Nursing:
 - At 15 minutes and 1-hour post-administration: assess for symptoms such as rash, angioedema, wheezing, and any patient/caregiver concerns. If any reaction, contact provider to evaluate patient and obtain complete set of vitals.
 - o Notify provider immediately if any reaction occurs

Reaction to drug challenge?

Immediate (IgE-mediated) reaction

- Occurs within 1 hour and can present as urticaria, angioedema, exanthem, wheezing, hypoxia, hypotension, anaphylaxis
- If anaphylaxis, utilize Anaphylaxis Clinical Pathway
- If not anaphylaxis, manage symptomatically per provider discretion
- Monitor for at least 6 hours to ensure resolution of reaction
- Treat with alternative antibiotic therapy per standard care
- Update allergy section with specific reaction + date

No Reaction within 1 hour post-drug challenge

- Delabel allergy in Epic by deleting allergy and selecting the reason as "no longer clinically significant". Include in the free text "direct oral challenge tolerated" with the date.

 Document in progress and discharge note that patient was successfully delabeled utilizing ".PenicillinChallenge"
- SmartPhrase
 Provide a ppropriate penicillin-based Rx with note to pharmacy that patient tolerated amoxicillin drug challenge

Discharge Instructions

Use alternative antibiotic therapy per

standard practice

- Provide education on when to suspect a delayed allergic reaction and to call ID at 860-545-9490 or seek medical attention
- Utilize SmartPhrase
 ".pencillinchallengedc/

Contraindication to drug challenge¹

- Severe cuta neous adverse drug reaction (e.g., SJS/TEN, DRESS, AGEP)
- Febrile neutrophilic dermatosis (Sweet Syndrome)
- Erythema multiforme
- Serum Sickness-like Reaction (SSLR)
- Drug induced autoimmune diseases (e.g., bullous pemphigoid, Pemphigus vulgaris, Linear igA bullous disease, drug induced lupus)
- Other cutaneous drug reactions (e.g., generalized bullous FDE, exfoliative dermatitis)
- Organ specific drug reactions (e.g., cytopenias anemia, neutropenia, leukopenia, thrombocytopenia; drug induced liver injury, nephritis, pneumonitis, meningitis, pancreatitis; drug induced vasculitis)
- Leukocytoclastic vasculitis
- Eosinophilic granulomatosis with polyangiitis

