1. **USE CASE: Creation and Maintenance of List of Allergic or Intolerance Conditions (Russ)**

## Description

The purpose of this use case is to describe a series of events related to the creation of an allergic and intolerance list of conditions. This use case will also include the maintenance of the allergy and intolerance list.

Conditions

Individual enrolls in practice of a primary care physician as a new patient and remains an active patient. Patient is self referred to other providers and is seen in an emergency department.

Exclusions

Evaluation by allergy specialist or confirmation of reactions by testing or direct challenge.

Preconditions

Individual has had previous primary care physician who has created a list of allergies and intolerances that is part of the individual’s medical record.

Use Case Sequence of Steps

1. List of allergies and intolerances is created on intake by new PCP
2. Previous record is reviewed and reconciled with patient history to update list
3. Patient is seen by PCP with reaction to newly prescribed medication. List is updated.
4. Patient is given new medication by another provider and has reaction that results in ED visit.
5. Summary is sent to PCP by ED with new allergy or intolerance added to list (and pharmacy and PHR)
6. PCP (Pharmacy and PHR) reconciles list of allergies and intolerances and updates list.

Post Condition

Reconciled list of allergy and intolerances is part of patient record(s).

Use Case Scenario

Eve Everywoman is a 48 year old female who is visiting with her primary care physician for the first time. She has brought a paper record from her previous primary care provider which includes an allergy list. The allergy list details a severe allergy to penicillin and to kiwi fruit.

Eve Everywoman notes that at the age of four, she was given penicillin for strep throat and subsequently developed severe hives. According to her mother, pediatrician advised that subsequent exposure to penicillin could be life-threatening. Those records are no longer available and her mother is deceased. Ten years ago at a restaurant, Eve ate kiwi from a salad bar and while still at the table experienced an itchy throat, swollen lips, and hives around the mouth. A companion gave her diphenhydramine to take and her symptoms resolved over the next few hours.

A review of systems during this initial visit reveals an itchy red weeping rash on Eve’s face, neck and shoulders where she had applied a promotional sample of sunscreen last month. The rash appeared the following day, and resolved after about a week. She did not take any medication for these symptoms. This does not occur when she uses her favorite brand, including when she used it four days ago.

Six months later, George Gynecologist gives Eve trimethoprim/sulfamethoxazole for dysuria. After four days, Eve calls to report vaginal itching and is given lotrimin. On day seven, Eve develops an itchy rash of purplish hives, sore red tongue, and red eyes over three days (while still taking the antibiotic). Eve calls her primary care provider who advises her to come in for an office visit. The primary care provider diagnoses an allergy to sulfa drugs and tells her to stop the trimethoprim/sulfamethoxazole. She was advised to take diphenhydramine as needed every six hours and all of her symptoms resolved over about a week. Sulfa allergy is added to the allergy list.

Three months after the diagnosis of the sulfa allergy, Eve visits Dan Dermatologist for adult acne. Erythromycin 250 mg bid is prescribed for one month. During the second week, Eve forgets to take the erythromycin until late afternoon so takes two pills at once. Thirty minutes later Eve has severe abdominal pain, nausea, vomiting and goes to the emergency department. In the emergency department, an x-ray and blood tests are performed. Phenegran is prescribed and Eve is told she is allergic to erythromycin. Her symptoms had resolved by the time she left the emergency department. The emergency room summary has downloaded the allergy list from the local Health Information Exchange as a CCD and has added an allergy to erythromycin.

The primary care provider reviews her account of the episode and reviews the summary from the emergency department. He advises that this episode is an intolerance related to dose and updates the allergy list. The erythromycin allergy is changed to “inactive” and an erythromycin intolerance is added to the list.