**HL7 Patient Care Work Group**

**Allergy/Intolerance/Adverse Reaction Topic Sub-Group Meeting Minutes**

**Date: April 12, 2012**

Co-Chairs: Stephen Chu, Hugh Leslie, Elaine Ayres Scribe: Elaine Ayres

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| --- | --- | --- | --- |
| **Name** | **Organization** | **E-mail** | **Present on 4/12/12** |
| Elaine Ayres | Academy of Nutrition and Dietetics/NIH | eayres@nih.gov | X |
| Andre Boudreau | Boroan, Canada | a.boudreau@boroan.ca | X |
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| Jean Duteau |  |  |  |
| Adel Ghlamallah | Canada Health Infoway | aghlamallah@infoway.ca |  |
| Maggie Gilligan | Academy of Nutrition and Dietetics | mmgilligan@gmail.com |  |
| Peter Harrison | McKesson |  |  |
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| Wendy Huang | Canada Infoway | whuang@infoway.ca |  |
| Steve Hufnagel | US DOD | Stephen.Hufnage.ctrl@tma.osd.mil |  |
| Tom de Jong | HL7 Netherlands | tom@nova-pro.nl |  |
| Hugh Leslie | Ocean Informatics, Australia | Hugh.leslie@oceaninformatics.com |  |
| Russell Leftwich | Office of eHealth Initiatives, Tennessee | [Russell.Leftwich@tn.gov] | X |
| Masaharu Obayashi | HL7 Japan | obayashi@metacube.jp |  |
| Richard Sakakura |  | 'richard.sakakura@stjoe.org' | X |
| Carolyn Silzle | Academy of Nutrition and Dietetics |  | X |
| John Snyder | Academy of Nutrition and Dietetics | jwsnyder@nutrioffice.biz |  |
| Michael Tan | Nictiz | tan@nictiz.nl |  |
| Cathy Welsh | St. Judes |  | X |
| Ben Loy |  |  | X |
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**Agenda for April 12, 2012**

1. Review and approve the minutes for March 29, 2012 meeting
2. Review status of Project Scope Statement
3. ACTION: Vote on withdrawal of DSTU extension request
4. Review assigned use cases
   1. Stephen and Hugh – Observed medication reaction - defered
   2. Carolyn and Elaine – Observed food reaction
   3. Russ – Creating and maintaining an allergy list
5. Reply to Bruce Goldberg re IHTSDO Immune Hypersensitivity Disorder Terms
6. Agenda issues for Vancouver WG meeting
7. Plan the agenda for the **April 26**  conference call

**Minutes** –

Minutes of the *March 29, 2012* conference call –

Motion: Russ/Andre Abstain – 0, No –0, Yes - 5

**DSTU Extension**  -

Requires vote to withdraw DSTU extension request to the TSC.

Motion to withdraw: Andre/Russ Abstain –0, No – 0, Yes - 5

**Scope Statement**

Project number 881 assigned to scope statement.

1. Patient Safety
2. **Pharmacy - Pending**
3. **Clinical Decision Support - Yes**
4. Structured Documents
5. Clinical Statement
6. **Electronic Health Record - Yes**
7. **Orders and Observations – Yes**
8. RCRIM

**Review of Use Cases**

The table below lists the current use cases, and the individuals assigned to write the use case(s).

Use cases reviewed:

Carolyn and Elaine: New food allergy (approved as written)

1. **Allergen Use Case: Observed New Allergic Reaction – Carolyn and Elaine**

Description:

The purpose of this case is to describe the observation of a new food allergic reaction in the Emergency Room. This information needs to be added to the patient’s medical record and shared with other providers that the patient will see post diagnosis.

Conditions:

* Patient had no previous food allergies.
* The patient’s primary care physician receives a copy of the Emergency visit automatically for his patients as she is affiliated with the hospital.
* Other providers have electronic medical records, but they are not associated with the hospital or primary care physician.

Exceptions: none

Preconditions:

* Patient has no known allergies prior to this event.
* Patient is a seven year old boy who eats lunch at school. Mother often packs his lunch.

Use Case Sequence Steps:

* Seven year old boy, Ned Nuclear, trades lunches with a friend at school.
* Ned eats peanut butter sandwich.
* Ned starts complaining that the back of his throat itches, hives and he can’t swallow.
* Friend alerts lunchroom monitor and he is taken to school nurse, Barbara Bandaid, who calls Mrs. Nuclear and ambulance.
* Ambulance starts treatment for supposed food allergy.
* Ned is further treated in the GGH Emergency Room where is medical record is updated with apparent food allergy

Post Condition (see additional use cases)

* Ned is referred back to his pediatrician, Karen Kidder for follow up.
* Dr Kidder refers him to allergist, Ramsey Reaction, for further treatment and education.
* Mrs. Nuclear and Ned pick up injectable epinephrine from local pharmacy, Good Neighbor Pharmacy.

Players:

Family: Ned Nuclear (boy)

Nelda Nuclear (mother)

*Friend: Fred Friendly*

Pediatrician: Karen Kidder

Emergency Room Provider: Eric Emergency

Allergist: Ramsey Reaction

Registered Nurse: Nancy Nightingale

Dietitian: Connie Chow

Hospital: Good Health Hospital

Emergency Room: GHH Emergency Room

Pharmacy, retail: Good Neighbor Pharmacy

*School: Happy Valley School*

*School Nurse: Barbara Bandaid*

Use Case Scenario:

Ned Nuclear is in second grade at Happy Valley Elementary school. His mother, Nelda Nuclear, often packs his lunch as he is picky. One day, his best friend Fred Friendly, asks to trade lunch with him. Ned agrees and starts to eat Fred’s peanut butter sandwich. After eating about half the sandwich, Ned starts complaining that his throat is itchy. Fred tells him to drink some milk and he’ll be fine. Ned starts to drink, but is having more difficulty with talking and swallowing. Fred calls over a lunchroom monitor who takes his to the school nurse, Barbara Bandaid.

Ned and Fred go to the nurse’s office. Fred starts telling Nurse Bandaid what happened and Barbara quickly realizes that Ned need immediate medical attention. She calls the GHH Ambulance and Mrs. Nuclear. Mrs. Nuclear agrees to meet the ambulance at the GGH Emergency Room. When the ambulance arrives, Barbara Bandaid briefs the crew on Ned’s condition and Mrs. Nuclear’s permission to transport to the hospital.

Emergency Care: The ambulance took Ned to Good Health Hospital Emergency Department. On the way, they administered epinephrine and diphenhydramine and notified the emergency room of the peanut exposure to a previously healthy child without a documented food allergy. Ned was quickly taken to a room when he arrived and Mrs. Nuclear began filling out paperwork and giving Ned’s medical history. Ned was examined by Eric Emergency and noted to have hives, swelling of eyes and lips and an itchy throat. Ned is then stabilized with additional epinephrine, diphenhydramine, corticosteroids, IV fluids, and oxygen. Ned remained in the emergency room for observation for several hours with his mother. Dr. Emergency reassured Mrs. Nuclear that Ned would be fine and that they should follow up with his pediatrician, Karen Kidder, in a couple of days. He stated that a copy of Ned’s discharge summary would be forwarded to Dr Kidder.

Medical record allergy list now includes an observed allergy to peanuts. Details included severity of reaction and criticality of condition based on severity of initial reaction.

Recommendations are noted in medical record to confirm the sensitivity to peanuts with appropriate testing through a referral to an allergist.

Future Use Cases to be determined:

Primary Care Visit:

Mrs. Nuclear and Ned had a follow up with Dr Kidder in two days. She reviewed Ned’s recent emergency records and took a family history of food allergies. She recommended the following:

* Referral to allergist for further oversight and education
* Prescription for self administered epinephrine
* Peanut allergy education for Sam, family, and school

Ned was very interested in learning more about how to prevent another reaction and asked that his mother schedule the allergy appointment as soon as possible. After the visit, Dr Kidder sent a copy of his summary note from the visit to the allergist and checked to see that Ned’s medical history was updated in the electronic record used by both the hospital and him.

Allergist Visit: Ned and his mother arrived at Dr. Reaction for education on food allergies. Mother completed a form so that the allergist could obtain a copy of the medical summary of Ned’s emergency room visit. Dr Reaction suggested additional allergy testing at a later date. The allergist’s nurse Nancy Nightingale then discussed how peanuts can be hidden in other foods and gave them a sheet with some examples. She also recommended that they join a Food Allergy Support group so that they could obtain regular updates on food ingredients and further education. (US – Food Allergy and Anaphylaxis Network). Nurse Nightingale also suggested that she would recommend a visit with Connie Chow, a registered dietitian, if the testing showed additional food allergies. After the visit, the allergist summarized the visit and sent a copy to Ned’s doctor and Mrs. Nuclear.

School Re-entry: Ned returned to school with his injectable epinephrine pen which was to be kept with his teacher. Mrs. Nuclear also volunteered to talk to the Happy Valley School food service manager regarding hidden sources of peanuts in foods.

## List of Adverse Reactions and Allergic or Intolerance Conditions Use Case (Russ will complete)

DRAFT as of 4/12/12

Description:

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

Conditions:

Exclusions:

Preconditions:

Use Case Sequence of Steps:

Post Condition:

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. Her pediatrician advised that subsequent exposure to penicillin could be life-threatening. 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 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 a week ago. This does not occur when she uses her favorite brand.

Following this initial visit, two other events occur. 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. 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 one. Thirty minutes later Eve has severe abdominal pain, nausea, vomiting and goes to the emergency room. In the emergency room, an x-ray and blood tests are performed. Phenegran is prescribed and Eve is told she is allergic to erythromycin. 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 advises that this episode is an intolerance related to does and updates the allergy list. The erythromycin allergy is changed to “inactive” and an erythromycin intolerance is added to the list.



**SNOMED CT – Content Improvement Project**

Bruce Goldberg at IHTSDO forwarded two documents: Allergic State – Immune Hypersensitivity Disorder (Inception Phase) and Allergic State – Immune Hypersensitivity Disorder (Elaboration Phase). The group discussed the best approach to providing comments. Each member is asked to review the documents and provide their comments to Stephen Chu and Elaine Ayres by *April 9.* The comments will be consolidated and returned to Bruce Goldberg.

No other comments received or forwarded to Bruce Goldberg.

**Conference calls**:

Every two weeks on Thursdays 5-6pm (EST)

**Agenda for April 26, 2012**

1. Review and approve the minutes for April 12, 2012 meeting
2. Review status of Project Scope Statement
3. Review status of DSTU Extension Withdrawal Request
4. EHR-S FM r2 requirements – mapping to use cases - Kevin
5. Review assigned use cases
   1. Stephen and Hugh – Observed medication reaction
   2. Russ – Creating and maintaining an allergy list
   3. Stephen and Hugh – Unable to determine allergy vs. intolerance
6. CSCR-044 Causative Agent - Clinical Statement change request - Stephen
7. Agenda issues for Vancouver WG meeting (Wednesday, May 16 – Q4)
8. Plan the agenda for the **May 10**  conference call