Allergy Status – Identification and Documentation

Basic Medication Safety (BMS) Certification Course
King Saud bin Abdulaziz University for Health Sciences
Ministry of National Guard – Health Affairs
Learning Objectives

• Identify the true drug allergic reactions
• Define the different types and classifications of ADR
• Identify the clinical presentation of drug allergy
• Recognize the treatment of drug hypersensitivity reactions
• Differentiate anaphylaxis from other allergic reaction presentations and its treatment
Case # 1

- 64 year old woman
- Hx anaphylaxis with cefuroxime
- Dx bowel obstruction, s/p laparotomy / mesh repair
- Post-op: metroNIDAZOLE and ciprofloxacin
- ASO – day before anticipated discharge

- Cefuroxime 750 mg IV every 8 hour prescribed via CPOE
- Allergy alert fired, overridden by physician with ‘OK’
- Allergy alert fired, overridden by pharmacist with ‘*’
- Administered by a nurse without verifying the allergy
- ADT form over the bed transcribed “NKA”

- Anaphylactic shock / Coded / Transfer to ICU / Expired
Medication Errors / Near Misses: Patients with Known Allergy

Harm Category

CR: January – December 2014
Total Number = 180

A - Potential to cause Harm/Damage
B - Near Miss - Error did not reach the individual
C - Error reached individual - No Harm/Damage
D - Required monitoring to confirm No Harm/Damage
E - Temporary Harm - Required intervention

- A: 38
- B: 133
- C: 5
- D: 2
- E: 2
Definitions

• **Adverse Drug Reaction**: Is a response to a medicinal product which is noxious and unintended and which occurs at doses normally used in man for the prophylaxis, diagnosis or therapy of disease or for the restoration, correction or modification of physiological function. (Saudi FDA)

• **Drug hypersensitivity**: an immune-mediated response to a drug agent in a sensitized patient; includes both allergic and pseudo allergic drug reactions

• **Drug allergy**: is restricted specifically to a reaction mediated by IgE
## Classifications of ADRs

### 1. Type A Reactions
- Predictable
- Common
- Relate to the pharmacologic actions of the drug
- May occur in any individual
- **Examples:**
  - **Toxicity** – hepatic failure with high dose acetaminophen
  - **Side effect** – sedation with antihistamines
  - **Secondary effect** – development of diarrhea with antibiotic treatment
  - **Drug interaction** – theophylline toxicity in the presence of erythromycin tx

### 2. Type B Reactions
- Unpredictable
- Uncommon
- Usually not related to the pharmacologic actions of the drug
- Occur only in susceptible individuals
- **Example:**
  - **Hypersensitivity (immunologic) reaction**
    - anaphylaxis with penicillin administration
Skin Manifestations
Anaphylaxis (Type I Reactions)

- **Timing**
  - IgE-mediated reactions occur rapidly after the last administered dose
  - The time to onset is influenced by the route of administration:
    - IV: seconds to minutes
    - Orally: 3 - 30 minutes (empty stomach)
    - Orally: 10 - 60 minutes (with food)
  - IgE-mediated anaphylactic reactions should NOT begin several days into a course of therapy
History.....!

- Are you allergic to any drugs / food?
- What happened when you took this medication / food?
- When was this reaction?
- Have you taken that medication / food since?
- Do you have any other allergies?
Common Medicines: Drug Allergy

- Anticonvulsants
- Anti-infectious agents
- Neuromuscular blocking agents (NMBA)
- NSAID (phenylbutazone, diclofenac,..)
- Radiocontrast media
Case # 2

- 58 year old woman
- Hx allergy to Celecoxib and Penicillin, which was on pre-printed prescription form
- Prescribed Celecoxib and filled the same day
- Patient took first dose 13 days after filling prescription
  - “Mild” Anaphylaxis
  - ECC – EPINEPHrine, IV steroids and IV Diphenhydramine
- Discharged home after three (3) hours
Therapy and Management (Non-Anaphylaxis)

- Discontinuation of the offending medication
- Call the prescriber
- Symptoms will resolve within two (2) weeks if the diagnosis of drug hypersensitivity is correct
- Additional therapy for drug hypersensitivity reactions is largely supportive and symptomatic
- Systemic corticosteroids may speed recovery in severe cases of drug hypersensitivity
- Topical corticosteroids and oral antihistamines may improve dermatologic symptoms
**APPENDIX D**

**ASPIRIN SENSITIVITY ALGORITHM**

Always check for any drug allergy before prescribing, dispensing, and administering drugs

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**APPENDIX E**

**SULFA DRUGS ALLERGY CROSS-REACTIVITY ALGORITHM**

Always check for any drug allergy before prescribing, dispensing, and administering drugs

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**APPENDIX F**

**PENICILLIN (BETA-LACTAM) ALLERGY CROSS-REACTIVITY ALGORITHM**

Always check for any drug allergy before prescribing, dispensing, and administering drugs

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**APPENDIX E**

**OPSI ODINTOLERANCE DECISION ALGORITHM**

Always check for any drug allergy before prescribing, dispensing, and administering drugs

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**APPENDIX F**

**PENICILLIN (BETA-LACTAM) ALLERGY CROSS-REACTIVITY ALGORITHM**

Always check for any drug allergy before prescribing, dispensing, and administering drugs

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Remember.....!

• Pre-medication WILL NOT prevent anaphylaxis if given prior to the allergenic drug

• Pre-medication ONLY approved for previous Radio Contrast Media (RCM) reactions less than one (1) hour
Acute Anaphylaxis Management

1. EPINEPHrine
2. EPINEPHrine
3. EPINEPHrine
4. EPINEPHrine
5. EPINEPHrine
6. EPINEPHrine
7. EPINEPHrine
8. EPINEPHrine
9. EPINEPHrine
10. EPINEPHrine
11. EPINEPHrine
12. EPINEPHrine
13. EPINEPHrine
14. EPINEPHrine
15. EPINEPHrine
16. EPINEPHrine
Anaphylaxis Kit:
Standardized Kit available through Pharmaceutical Care Services Department for inclusion in Floor Stock
# APP 1433-16 Allergy Status – Identification and Documentation

## Anaphylaxis

### Factors that increase risk of anaphylaxis severity and lethality

- Infection, especially upper respiratory tract infection
- Atopy
- Family history of anaphylaxis
- Previous severe reaction
- A previous reaction to an appropriate epinephrine auto-injector dose
- Inappropriate or prolonged use of epinephrine auto-injector

### Signs & Symptoms

- Subcutaneous or intramuscularema
- High fever
- Hypotension
- Tachycardia
- Severe coughing

### Diagnosis

- Skin testing
- Skin prick test
- Intradermal test

### Treatment

- Epinephrine auto-injector
- Antihistamines
- Corticosteroids

## Anaphylaxis Kit Contents:

- Alc. Swabs: 10
- Epinephrine 1mg/ml: 3
- Albuterol (Salbutamol) 1mg/2.5ml: 2
- Nebulizer Solution: 2
- Diphenhydramine 50mg/ml: 1
- Ranitidine 50mg/2ml: 1
- Methylprednisolone Sodium Succinate 500mg: 2
- Glucagon 1mg (1 Unit) Syringe: 2
- Normal saline injection 5 or 10ml: 2

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*First Drug Exp: [Date]*

*Checked By:* [Signature]
Allergy status must be documented **before** any medication(s) is / are administered, except in emergencies.

Assessment and documentation of an allergy is a diagnosis and must be determined by a **physician**, and attention given to the diagnosis of Allergy prior to prescribing.

It is the Physician’s responsibility to verify and document allergy in the HIS-CPR, as well as on the patient’s clinical record / order sheet, which should lead to the patient’s chart to be “flagged” with allergy statement.
Allergy Status

**Known allergy**
Name the substance; for medications the generic name(s) of medication(s) must be documented.

**No Known Allergy**
The patient / carer and clinical records are clear that the patient has never experienced an allergic reaction or severe adverse reaction to any substance.

**Allergy status is not yet ascertained**
*ONLY* to be used in exceptional circumstances where it has not been possible to ascertain allergy status on admission. Allergy status must be confirmed as soon as possible.
Allergy Status

If a patient has documented previous known allergies, and upon investigation a physician deems the patient does not have the noted allergy:

- He / She must write an order to change the allergy status
- Document in the progress notes of the clinical record
- Update in the HIS-CPR

In the case of new allergies diagnosed by physician:

- He / She must write an order to change the allergy status
- Document in the progress notes of the clinical record
- Update in the HIS-CPR

If the physician is in doubt about the allergy, referral should be made to an immunologist for confirmation.
Alert

MRN: 556538
Final Update Date: 08/12/2015 15:52

Asynchronous Drug Reaction and Allergy (1 Case)

- **Diphenhydramine Capsule**
  - Symptoms: Rash
  - Comments: Diphenhydramine HCl
  - Occurred Date: 01/12/2015
  - Info: Provider
  - Caregiver
  - Reg Date: 01/12/2015 (MIS)

- **Vancomycin (50mg/ml) Oral Solution**
  - Symptoms: Anaphylaxis
  - Comments: Vancomycin HCL
  - Occurred Date: 01/12/2015
  - Info: Provider
  - Caregiver
  - Reg Date: 01/12/2015 (MIS)

- **Other: Povidone-Iodine**
  - Symptoms: Rash
  - Occurred Date: 01/12/2015
  - Info: Provider
  - Caregiver
  - Reg Date: 01/12/2015 (MIS)

- **No Known Allergy**
  - Occurred Date: 01/12/2015
  - Info: Provider
  - Caregiver
  - Reg Date: 01/12/2015 (MIS)

- **Other: Plastic Tape**
  - Symptoms: Rash
  - Occurred Date: 01/12/2015
  - Info: Provider
  - Caregiver
  - Reg Date: 01/12/2015 (MIS)

Infection (1 Case)

There is no searched data.

Clinical Alert (1 Case)
1. Check allergy status immediately before prescribing, dispensing or administering drugs: Every drug, Every patient, Every time.

2. Understand allergies and cross-allergies.

3. Educate patient / carer of their allergy status. Patients need to have a clear understanding of which drugs(s) to avoid. The patient is the one constant factor irrespective of where health care is delivered.

4. Standardize allergy history taking & documentation.

5. Maximize the impact of computerized prescribing.
APP 1433-16: Allergy & Hypersensitivity Recording & Documentation

MINISTRY OF NATIONAL GUARD - HEALTH AFFAIRS
ADMINISTRATIVE POLICY AND PROCEDURES

NUMBER: APP 1433-16
TITLE: ALLERGY STATUS - IDENTIFICATION AND DOCUMENTATION

ORIGINATING DEPT.: SAUDI MEDICATION SAFETY CENTER (SMSC)
ORIGINAL DATE: OCTOBER 2012
REVISED DATE: SEPTEMBER 2015

1. PURPOSE
To define the process in identification and documentation of patient allergy/intolerance status in order to prevent patient harm within the Ministry of National Guard – Health Affairs (MNG-HA) healthcare and all affiliated facilities.

2. APPLICABILITY
To all healthcare staff involved in the medication use process related to the medications listed in the MNG-HA Drug Formulary within all MNG-HA healthcare and all affiliated facilities.

3. RELATED REFERENCES
3.1 APP 1429-03: Prescribing and Dispensing Medication Guidelines
3.2 APP 1430-10: Clinical Record Content and Documentation Standards
3.3 APP 1430-27: Patient Admission (H&P) Assessment
Safe Patient Care Is Our Goal