

## RN Protocol: Allergic Reaction

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### I. POLICY

- A. Function: To facilitate and guide the Registered Nurse (RN) in the assessment and treatment of patients experiencing an allergic reaction.
- B. Circumstances under which the RN may perform the function:
  - 1. Setting: Outpatient clinic and Triage and Treatment Area.
  - 2. Supervision: None required.

### II. PROTOCOL

- A. Definition: This protocol covers the assessment and treatment of patients presenting with signs and symptoms of allergic reaction including anaphylaxis. Anaphylaxis is defined as an immediate often life-threatening hypersensitivity reaction triggered by exposure to an allergen via injection, inhalation, ingestion, or skin contact. Anaphylaxis can produce signs and symptoms ranging from mild pruritus and hives to airway obstruction, shock, and death. Generally, the more rapid the onset, the more severe the reaction.
- B. Subjective:
  - 1. Chief complaint (document in the patient's own words).
  - 2. Date and time of onset.
  - 3. Has the patient ingested any of the following within the last 45 minutes: seafood, shellfish, eggs, nuts, berries, medication (e.g., antibiotics, aspirin, NSAIDs)?
  - 4. If medication was ingested within 45 minutes of the reaction, identify the drug, dose, route, and time of ingestion.
  - 5. History of contact dermatitis or infectious disease in the past 2 weeks.
  - 6. Previous history of allergic reaction to a particular food, medication, herb, or injected allergen such as bee, hornet, wasp, or yellow jacket sting.
  - 7. Assess for the following symptoms: nasal congestion, difficulty breathing, difficulty swallowing, tightness in chest, generalized warmth, tingling of the hands, feet, or lips, rash, pruritus, urticaria, abdominal cramps, nausea, vomiting, diarrhea.
  - 8. Current medications.
- C. Objective:
  - 1. Assess ABCs.
  - 2. Vital signs and weight if stable.
  - 3. Assess level of consciousness and responsiveness.
  - 4. Observe ventilatory effort indicating difficulty breathing, respiratory distress (congestion, wheezing, shortness of breath).
  - 5. Observe skin for diaphoresis, erythema, rash, hives, facial swelling, tongue swelling, and/or cyanosis.

D. Assessment:

- Ineffective breathing pattern related to/evidenced by: (specify on associated encounter form).
- Impaired gas exchange related to/evidenced by: (specify on associated encounter form).

E. Plan:

1. Maintain patent airway. Assist ventilator as indicated.
2. If medication is suspected to be the cause of the reaction, discontinue medication STAT and notify a physician.

**Local Reaction:** characterized by urticaria, local erythema, edema, and pruritus.

1. Apply Hydrocortisone 1% cream to affected area PRN, not more than 4 times daily.
2. Follow-up in the RN clinic in 3 days if symptoms do not improve.

**Generalized Non-Life Threatening Reaction:** characterized by generalized pruritus and flushing of the skin, urticaria, lacrimation, sneezing, nasal congestion, rhinorrhea, cough, angioedema without airway involvement, and peripheral tingling of the hands, feet, and lips.

1. Maintain patent airway.
2. Administer O<sub>2</sub> at 2-6 L per minute via nasal cannula to maintain oxygen saturation ≥ 90%.
3. Administer Cetirizine 10mg PO X 1 and Ranitidine 150 mg PO X 1.
4. Observe the patient closely for 2 hours. Notify a physician regarding the patient's status post-treatment. Discharge the patient from treatment only upon the order of a physician.
5. If symptoms progress to become life-threatening, implement treatment protocol for generalized life-threatening allergic reaction.

**Generalized Life-Threatening Reaction:** characterized by the above symptoms, often with abrupt onset, in association with tightness in the throat, dyspnea, wheezing, hypotension, tachycardia, anxiety, and airway obstruction. May lead to respiratory/cardiac arrest. Seizures may also occur. Note: nausea, vomiting, abdominal cramping, and diarrhea may be present if reaction is due to food allergy.

1. O<sub>2</sub> at 15 L/minute via face mask. If airway obstruction occurs, assist ventilation using a bag valve mask (Ambu® bag).
2. Notify a physician **STAT**.
3. Transport to Emergency Treatment Area **STAT**.
4. Place on pulse oximeter and monitor oxygen saturation.
5. Place on cardiac monitor and monitor cardiac rate and rhythm.
6. Administer Epinephrine 1:1000 aqueous 0.3 mg SQ. Vigorously massage injection site to increase absorption. May repeat dose every 10 to 15 minutes X 2 PRN.
7. Prepare to transfer the patient to an outside facility or admit to a facility capable of providing a higher level of care.

8. Insert an intravenous line and infuse Sodium Chloride Intravenous Solution (0.9%). Adjust infusion rate to keep systolic blood pressure > 90 mm Hg.
9. Administer Diphenhydramine 50 mg IV over 5 minutes (one time only).
10. Administer Methylprednisolone Sodium Succinate Injectable 125 mg IV (one time only).
11. Monitor and record vital signs every 5 minutes until stable. Thereafter, monitor and record vital signs, oxygen saturation, level of consciousness, and breath sounds every 15 minutes.
12. Fax a copy of the relevant progress notes, physician orders, and emergency care flow sheet to the receiving facility.

**F. Patient Education:**

1. Assess the patient's potential for understanding the health information to be provided.
2. Provide patient education consistent with the assessment of the condition.
3. Document the education provided and the patient's level of understanding in the health record.
4. Refer the patient to other resources as needed. Document all referrals in the health record.
5. Advise the patient to utilize the urgent/emergent process to access medical care if symptoms recur.

**G. Documentation:**

All information related to the patient's complaint shall be documented on the emergency care flow sheet, nursing protocol encounter form, or progress note and filed in the patient's health record.

**III. REQUIREMENTS FOR THE REGISTERED NURSE**

- A. Education/Training: The RN shall attend an in-service on the assessment and management of allergic reactions and achieve a minimum score of 80% on the written posttest examination.
- B. Experience: None.
- C. Certification: None.
- D. Initial Evaluation: Initial competence will be validated onsite through simulated exercises, mock scenarios, and return demonstration. The RN must satisfactorily demonstrate all critical behaviors identified on the Competence Validation Tool to be considered competent to perform standardized procedure functions.

A written performance appraisal shall be performed by the Supervising RN or designee six months after initial competence has been validated. Methods to evaluate performance shall include, but not be limited to direct observation, feedback from colleagues and physicians, and chart review.

- E. Ongoing Evaluation: Ongoing competence will be validated annually using case study analysis, written examination, and return demonstrations where appropriate.

**IV. REGISTERED NURSES AUTHORIZED TO PERFORM THIS PROCEDURE**

The Chief Nurse Executive shall ensure a current list of all RNs authorized to perform this procedure is on file within Nursing Services as required by Inmate Medical Services Policies and Procedures, Volume 5, Chapter 4.2, Nursing Competency Program Procedure.

**V. DEVELOPMENT AND APPROVAL OF THE STANDARDIZED PROCEDURE**

This standardized procedure was developed and approved by authorized representatives of administration, medicine, and nursing. The procedure will be reviewed annually.

REVIEW DATE: \_\_\_\_\_  
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REVISION DATE: \_\_\_\_\_  
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THE STANDARDIZED PROCEDURE WAS APPROVED BY:

\_\_\_\_\_  
Chief Nurse Executive

DATE: \_\_\_\_\_

\_\_\_\_\_  
Chief Medical Executive

DATE: \_\_\_\_\_