

Policy: P014- Emergency Medical Management

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**I. Purpose:** Anaphylaxis is a severe, potentially life-threatening allergic reaction. It can occur within seconds or minutes of exposure to an allergen. Anaphylaxis causes blood pressure drops suddenly and airways to narrow, blocking the ability to breath. Immediate attention and action is required to counteract such effects and increase chances of survival. A delay in treatment can result in death. Purpose of this policy, is to provide clinicians with the essential knowledge required to increase successful assessment, treatment and outcome when managing adverse reactions.

**II. Policy:**

- A. All programs requiring on-site vaccinations and/or On-Site Clinic Assessments will be equipped with emergency medication(s) and Vital Sign equipment. **[refer to diagram 1.1]**
- B. All programs requiring emergency medication(s) and Vital Sign equipment require staff to receive Emergency Medical Management virtual and live training.
- C. Logistics stock and disperse supplies accordingly prior to event start times if program includes vaccine administration and/or On-Site Clinic.
- D. Logistics is responsible for checking expiration date prior to sending out to events. On-site clinicians are responsible for checking expiration dates daily prior to event start times.
- E. Staff is required to conduct medication counts at the start and end of all vaccination or clinic events.
  - i. All medication counts must be recorded and signed by head clinician.
- F. Epinephrine IM and Benadryl IM are considered ‘Emergency Medication’ and will be administered in anaphylaxis emergency life-threatening situations ONLY.
- G. Weight is required for all patients age 11 or <.
- H. Epinephrine dose is weight based for all children under 16 lbs. Pediatric Epi doses will be 0.1mg or 0.15mg auto injector, based on patients weight.
- I. IM Benadryl is not to be administered to any child under 33 lbs.
- J. Oral Benadryl is not to be administered to any child under 66 lbs.

- K. Assess severity of symptoms and treat according to severity [**refer to diagram 1.1**]
  - i. Localized reactions
  - ii. Psychological reactions
  - iii. Syncopal vasovagal and pre-syncopal reactions
  - iv. Anaphylactic reactions (anaphylaxis)
- L. All COVID vaccine recipients require a fifteen (15) minute observation period following vaccination.
- M. Epinephrine is the **first line medication** for all **severe** Adverse Reactions. [refer to standing Emergency Medication Orders]
- N. Extend observation from 15 minutes to 30 minutes for all COVID vaccine recipients who report adverse reactions [dizziness, syncope, rash, palpitations, etc.], observing closely and monitoring for worsening or improving and ultimately resolving symptoms.
- O. No observation required for Flu vaccine recipients.
- P. Observation protocol must be implemented if a Flu vaccine recipient complains of adverse reaction to vaccination.
- Q. Extra caution and clinical assessment required when determining a patient's adverse reaction severity.
- R. Do not administer Medication until patient has been thoroughly evaluated and it has been deemed clinically necessary.
- S. Activate EMS for persons experiencing life threatening adverse reactions.
- T. Vital Sign monitoring must be initiated and documented for all adverse reactions and/or patient symptom complaint.
- U. If possible, obtain patient's past medical and social history, including allergies, severity of past allergic reactions, medication list and recent activity.
- V. Provide patient with water or food source, as needed **ONLY**, for clinical treatment of adverse reactions. Not to be provided to all patients and not to be provided to patient complaining of throat involvement. i.e. lump, swelling, difficulty swallowing, etc.
- W. Document vital signs, treatment/intervention, and outcome for all adverse reactions.
- X. Report all severe adverse events to the designated triage Nurse **HOTLINE**.
- Y. Recommend and encourage all patients to follow up with PCP if adverse reaction occurs.

### III. Procedure:

- A. Equipment & Supplies
  - i. Confirm all equipment is readily available for quick access when responding to a medical emergency. [**refer to diagram 1.1**]
  - ii. Logistics confirms all necessary Emergency Kits are readily available to staff working vaccine events.
  - iii. Staff designated to work observation at COVID events, or work as vaccinator at Flu vaccine events must assess and confirm E-Kit supplies are present and accurate.
- B. Training
  - i. All new staff must receive thorough training prior to their first event and additional live review by Head Clinician for those working any vaccine event.
  - ii. Staff is responsible for all information outlined here within.
- C. Weights

- i. Required for all patients under 12 years old.
- ii. Okay to obtain approximate weight from parent or guardian verbally.

D. Assessment

- i. Physical assessment and visualization of patient is the most important factor in identifying the type of adverse reaction.
- ii. Look at patient's breathing patterns i.e. use of accessory muscles, tachypnea, shallow breathing, panic, etc.
- iii. Prior to activation of EMS, AP clinician must rapidly and efficiently assess and identify if symptoms are related to anxiety and/or syncopal vasovagal versus anaphylaxis and treat condition appropriately. **[refer to diagram 1.1]:**
- iv. If a patient is having the following, initiate emergency medical management:
  1. shortness of breath
  2. airway constriction
  3. facial or laryngeal edema
  4. angioedema
  5. stridor
  6. wheezing
  7. chest pain
  8. chest tightness, etc.

E. **Types of Adverse Reactions**

i. **Anaphylaxis**

1. Clinical presentation may include the following:
  - Feeling of impending doom
  - Hives
  - Facial, laryngeal edema, and/or swollen tongue
  - Angioedema
  - Change in voice
  - Inability to swallow and/or speak
  - Panic
  - Fear
  - Difficulty breathing
  - Chest pain

2. **Anaphylaxis Treatment on site:**

- a. **Moderate to Severe Anaphylaxis [rash, hives, itching, difficulty swallowing, shortness of breath, facial swelling, etc.]**

**NOTE:** common to see swelling in patients who have a history of dermal fillers.

- i. Administer Epinephrine according to weight for respiratory involvement. Repeat as needed.
  1. Respond rapidly
  2. Keep patient safe and comfortable
  3. Administer Benadryl IM if itching, rash and/or hives are present as well.

4. All patients who receive Epinephrine must be transported to an emergency department via EMS.
  5. If a patient refuses medical treatment – a ‘Refusal of Care’ form needs to be completed and signed by patient.
  6. If patient refuses to sign the ‘Refusal of Care’ – clinician is to document such on incident report.
- ii. Activate EMS
  - iii. Monitor Vital Signs
    1. Vital Sign changes occur during anaphylactic shock.
    2. Goal is to intervene quickly and transfer care to EMS prior to significant change in vital signs can occur.
  - iv. Provide emotional support and re-assurance.
  - v. Transfer care to EMS once they arrive
  - vi. Do not leave patient alone.
  - vii. AP clinician must stay with patient at all times until care has been transferred to EMS.
  - viii. Airway protection is vital in management of anaphylaxis.
  - ix. All patients who receive Epinephrine must be transported to an emergency department via EMS.
    1. If a patient refuses medical treatment – a ‘Refusal of Care’ form needs to be completed and signed by patient.
    2. If patient refuses to sign the ‘Refusal of Care’ – clinician is to document such on incident report.
  - xiii. Failure to treat a person who is having an anaphylactic episode can result in death.
  - ix. Affiliated Physicians expects clinicians to identify emergency situations and to treat persons who are suffering serious, and potentially life-threatening adverse reactions.
  - x. Re-education of staff may be required if failure to treat a person experiencing anaphylaxis symptoms occurs.
  - xi. Negligence will not be tolerated and staff may be terminated if deemed negligent or not adhering to nurse’s clinical scope of practice.
- ii. **Mild Symptom Complaint**
1. For 12+ ONLY: Oral Benadryl is available for non-resolving rash, hives, or itching.
    - a. **Administer only if no further progression of symptoms develops into moderate to severe anaphylaxis.**

2. Do not administer oral Benadryl to pediatric patients under 12 years old.
3. There must be documented resolve of symptoms prior to patient leaving observation.

iii. **Syncopal Vasovagal Reaction:**

Vasodilation leading to sudden drop in blood pressure and heart rate. This leads to decrease in blood flow to brain. Generally, vasovagal syncope is benign and does not require transfer to hospital setting.

1. **VASOVAGAL clinical presentation may include the following:**

- Lightheaded
- Dizzy
- Loss of consciousness
- Pallor
- Weakness
- Diaphoresis
- Cool extremities

2. **VASOVAGAL Treatment on site:**

- a. Assess the patient and maintain patient safety/comfort.
- b. Place patient in Trendelenburg position (raise lower extremities to/above heart level). This allows gravity to divert blood flow that has been pooled in lower extremities to get to heart and brain.
- c. Stay with patient at all times until patient has recovered completely.
- d. Monitor vital signs.
- e. DO NOT give patient anything orally until fully recovered.
- f. Patient should regain consciousness within seconds.

iv. **Anxiety or Panic Attack**

This can sometimes be confused for anaphylaxis. These patients may experience an elevated heart rate, blood pressure and respiratory rate. **Clinically identify and NEVER administer epinephrine because it will exacerbate these types of reactions.**

1. Cutaneous symptoms such as swelling, hives, itching, and flushing are generally not present with anxiety and/or panic attacks.

2. **ANXIETY or a PANIC ATTACK clinical presentation may include the following:**

- Diaphoresis
- Increased work of breathing
- Dizziness, palpitations
- Chest pain
- Difficulty breathing

3. **ANXIETY or PANIC ATTACK Treatment on site:**

- a. Assess patient and maintain safety and comfort.
- b. Provide emotional support and re-assurance to patient.
- c. Encourage deep breathing exercises.
- d. DO NOT PANIC.

- e. Maintain a calm environment for the patient.
  - o Patients will generally look to medical professionals to determine if something is seriously wrong.

F. Expiration Dates

- i. Medications expire on the last day of the month listed on expiration date

Example: Benadryl vial expires 12/2021- It would not be allowed for use after 12/31/2021).

- 1. No expired medication(s) and/or equipment can be used by on-site staff.
- 2. Expired medications and/or equipment must be returned to the office via event crate and labeled 'expired' for proper disposal. **[Refer to Policy P008- Medical Waste Management]**

G. EMS- at Patient Request

- i. If a parent of a minor or adult patient requests EMS during any adverse reaction, AP staff will comply.

H. Medication Administrations

- i. Two (2) clinician dosing confirmation required prior to administration.
- ii. Clinical documentation is required.
- iii. Compliance status follow up call to patient within 24-48 hours of incident.
- iv. Any patient who receives Epinephrine requires EMS activation

I. Post Vaccination Monitoring

- i. Affiliated Physicians will monitor patients post any **COVID vaccine** administration for a minimum of 15 minutes. The following is recommended standards of practice; however patients are able to leave at will.

- 1. 15-minute observation for those not experiencing any adverse reactions and no known past allergic reactions.
  - a. If patient chooses to forego observation:
    - i. Reinforce with patient importance of being observed.
    - ii. Document in EMR or hard copy consent, whichever is applicable.
- 2. 30-minute observation for those experiencing some adverse symptoms: i.e. tickle in throat, warmth throughout body, lightheaded, etc. and/or past allergy history.
- 3. Confirm symptoms resolve or improve before patient exits observation.
  - a. If patient is mildly symptomatic or not symptomatic and chooses to exit observation prior to timeframe, document in EMR or hard copy consent.
  - b. If patient requires emergency medication and/or EMS and chooses to refuse treatment, complete **Against Medical Advice form** and document in EMR or hard copy consent, whichever is applicable.
    - i. If patient refuses to sign AMA form – document in the patient's EMR or hard copy vaccine document, whichever is applicable.

- c. If patient's symptoms resolve or improve - advice patient to follow up with PCP, urgent care or ER as needed for returning, continuing or worsening symptoms.
- ii. > 30 minutes observation periods are for those whose symptoms are not resolving.
  1. If > 30 minutes is needed, continue assessing vital signs and look for signs of improvement.
    - a. Understand the difference between Anxiety, Panic Attacks, Vasovagal, and Anaphylaxis episodes. **[refer to diagram 1.0]**
  2. Patient to be informed to monitor self for worsening symptoms.
  3. Direct patient to activate 911 EMS should symptoms worsen or symptoms of anaphylaxis reaction occur.
  4. If Vital Signs are not stable and/or reaction is noted to be severe, administer emergency medication according to protocol and activate EMS.

**J. Influenza vaccine events**

- i. No observation period is required for Flu vaccine administration.
- ii. If patient experiences and reports an adverse reaction, observe patient: i.e. tickle in throat, warmth throughout body, lightheaded, etc.
  1. If patient is mildly symptomatic or not symptomatic and chooses to exit observation prior to timeframe, document in EMR or hard copy consent, whichever is applicable.
  2. If patient requires emergency medication and/or EMS and chooses to refuse treatment, complete ***Against Medical Advice form*** and document in EMR or hard copy consent, whichever is applicable.
    - a. If patient refuses to sign an AMA form – document in the patient's EMR or hard copy medical record accordingly.
  3. If patient's symptoms resolve or improve - advice patient to follow up with PCP, urgent care or ER as needed for any recurring, continuing and/or worsening symptoms.
  4. Inform patient to monitor self for worsening symptoms.
  5. Direct patient to activate 911 EMS should symptoms worsen or symptoms of anaphylaxis reaction occur.
  6. If Vital Signs are not stable and/or reaction is noted to be severe, administer emergency medication according to protocol and activate EMS.

**K. Wellness Events**

- i. Vital Sign values **out of normal range**, provide direction to patient.
  1. **Asymptomatic:** If values are alarmingly out of normal range and patient is asymptomatic, refer patient to urgent care or ER.
    - a. Any refusal of advice by patient, complete ***Against Medical Advice form***
  2. **Symptomatic:** If values are alarmingly out of normal range and patient symptomatic, activate EMS via 911.

- a. If patient requires EMS and chooses to refuse treatment, complete ***Against Medical Advice form*** and document in EMR or hard copy consent, whichever is applicable.
  - b. If patient refuses to sign an AMA form – document in the patient’s EMR or hard copy vaccine document, whichever is applicable.
  3. Encourage patient to self-monitor.
  4. Reinforce importance of regular Primary Care Physician checkups.
  5. Direct patient to ER for any recurring, continuing and/or worsening symptoms.
- L. Hotline Reporting
- i. Report all severe adverse events requiring medication intervention or EMS activation to the AP HOTLINE with the following information:
    1. Name
    2. Adverse Reaction
    3. Outcome – [VAERS, EMS and/or resolved]
- M. EMS transfer
- i. If patient’s care is transferred to EMS, report adverse event to AP HOTLINE with the following information:
    1. Patient name
    2. DOB
    3. Adverse reaction
    4. Outcome – include hospital patient is being transported to
    5. If VAERS report completed – if vaccine related.
- N. Treatment intervention and outcome
- i. Document treatment intervention and outcome. [include the following information]:
    1. Patient name, age, DOB and sex
    2. Primary language patient speaks
    3. Vaccine information (brand name, lot number, site of administration and dosage)
    4. Date, time and location of vaccine administration
    5. Date and time of adverse event(s) started
    6. Symptoms and outcomes of the adverse event(s)
- O. VAERS reporting
- i. Sites with printer and computer capabilities:
    1. Clinical program manager must complete the online VAERS reporting process for adverse reactions. [Vaccine Adverse Event Reporting System \(VAERS\) \(hhs.gov\)](#)

Step 1: Click on ‘Report an Adverse Event’  
Step 2: Complete Report  
Step 3: Submit  
Step 4: Forward report confirmation email with patient name to [compliance@affiliatedphysicians.com](mailto:compliance@affiliatedphysicians.com)
  - ii. Sites with no printer/computer:



1. Report all severe adverse reactions to HOTLINE.
2. VAERS reporting and adverse reaction tracking will be managed by Clinical Leadership Team.

P. Document adverse reactions

i. Include the following information:

1. Involved person's name and contact information
2. Symptom(s) with explanation of type of reaction
3. Vital signs – minimum of 2 sets
4. Date/time of incident (adverse reaction and/or complaint)
5. Date/time of vaccine administration, if applicable
6. Location
7. Precipitating factor
8. Intervention
9. Medication(s) administered – if applicable
10. Witnesses and contact information
11. Outcome, improvement, resolutions
12. Whether or not EMS was activated
13. VAERS case # - if applicable

Q. Quality Assurance

- i. Adverse reactions and treatment of may be reviewed by the clinical compliance team to confirm standards of practice and company policies are being adhered to.
- ii. Remediation will be conducted wherever skills deficiency is identified.
- iii. AP's priority is to provide safe and effective treatment to event participants.

**Table 1.0 – Symptom Assessment and Management of Adverse Reactions**

<u>Reaction</u>	<u>Signs &amp; Symptoms</u>	<u>Management</u>
<b>Localized</b>		
	Soreness, redness, itching, or swelling at the injection site	Direct patient to apply cold compress to site and to take an analgesic (pain reliever) as needed. May require antipruritic (anti-itch) medication.
	Slight bleeding	Apply pressure with gauze and adhesive bandage over injection site.
	Continuous bleeding	Apply thick layer of gauze over injection site with firm pressure and raise injection site higher than heart if possible.
<b>Syncopal vasovagal and/or pre-syncopal. Anxiety/Panic attacks</b>		
	Fright before injection is given	Place patient in supine position prior to vaccination.
	Patient feels "faint" (e.g., light-headed, dizzy, weak, nauseous, or has visual disturbances)	Place patient in supine position. Remove patient's mask, if applicable. Loosen any tight clothing and maintain open airway. Apply cool, damp cloth to patient's face and neck. Keep them under close observation until full recovery.
	Fall without loss of consciousness	Examine the patient to determine if injury present before attempting to move the patient. Place patient in Trendelenburg position.
	Loss of consciousness	Check to determine if injury is present before attempting to move patient. Place patient in Trendelenburg position. Call 911 if patient does not recover immediately.
<b>Anaphylaxis</b>		
	<b>Skin and Mucosal Symptoms:</b> generalized hives, itching, or flushing; swelling of lips, face, throat, or eyes	Refer to Emergency Medical Management procedure detailed in Policy P014.
	<b>Respiratory Symptoms:</b> nasal congestion, change in voice, inability to swallow, drooling, throat closing sensation, stridor, shortness of breath, wheeze, cough, feeling of impending doom, etc.	
	<b>GI Symptoms:</b> nausea, vomiting, diarrhea, abdominal cramping/pain	
	<b>Cardiovascular:</b> collapse, dizziness, tachycardia, hypotension	
		When there are changes in vital signs, patient has already started to go into anaphylactic shock!

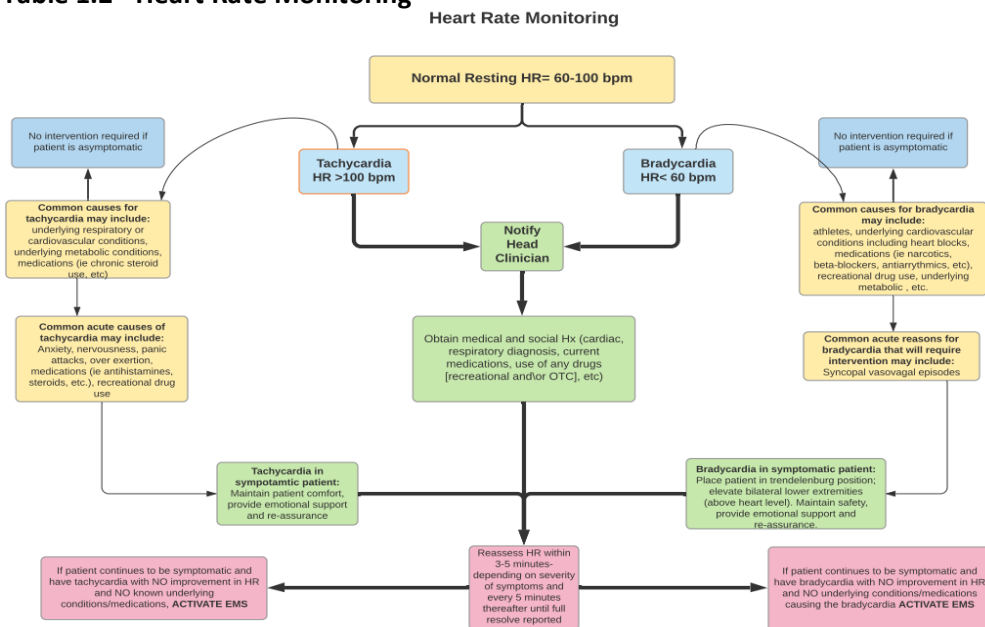
**Table 1.1 – Emergency Kit Supply List**

Supply List – Emergency Kit [E-Kit]	
<b>1:1000 dilution</b>	(3) Epinephrine 1.0 mg/mL aqueous solution.
	(2) Benadryl IM 50mg/mL
	Oral Benadryl
	Alcohol Prep Pads
	(5) 1cc Syringe w/ needle 25g - 1"
	(5) 1cc Syringe w/ needle 25g – 1 ½"
	BP Cuff – Regular and XL
	Stethoscope

	Pulse Oximeter
	CPR mask
<b>Paperwork</b>	
	Anaphylaxis Standing Order
	Against Medical Advice Form
	Clinician Report Form

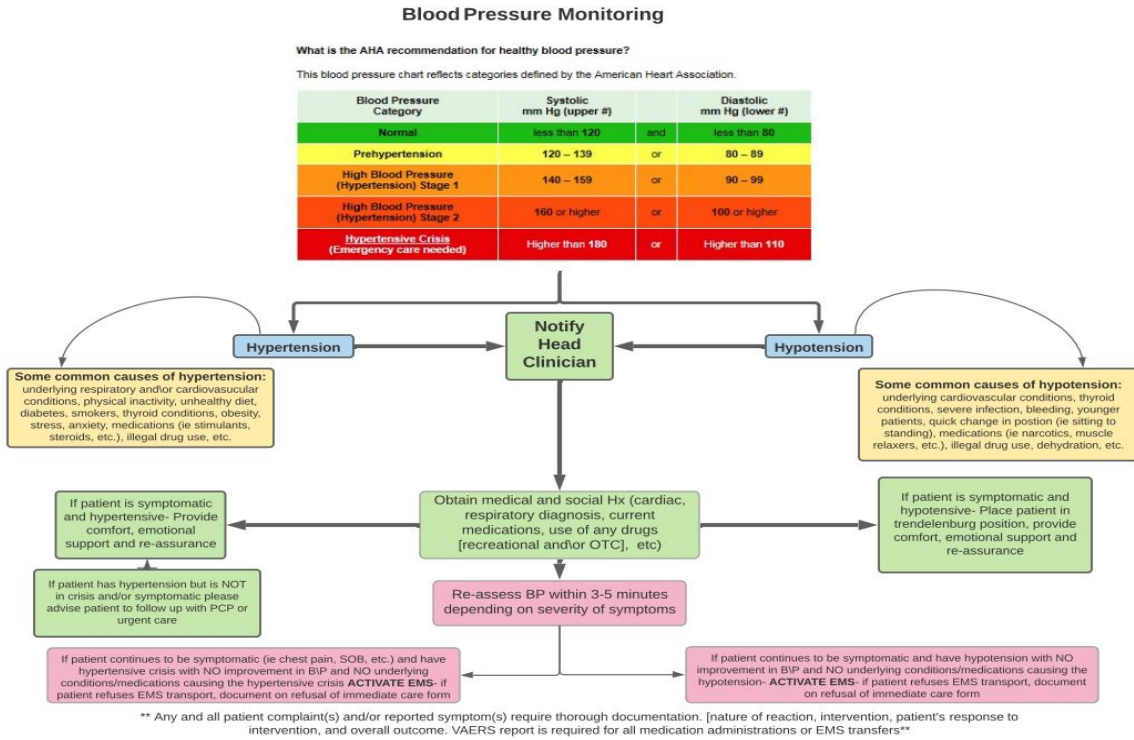
Supply List – Pediatric Emergency Kit [E-Kit]	
<b>1:1000 dilution</b>	Epinephrine 0.15mg Autoinjector
	Benadryl IM 50mg/mL
	Alcohol Prep Pads
	(5) 1cc Syringe w/ needle 25g - 1"
	(5) 1cc Syringe w/ needle 25g - 5/8"
	BP Cuff – kids – peds size cuff
	Stethoscope
	Pulse Oximeter
	CPR mask
<b>Paperwork</b>	
	Anaphylaxis Standing Order
	Against Medical Advice Form
	Clinician Report Form

**Table 1.2 - Heart Rate Monitoring**

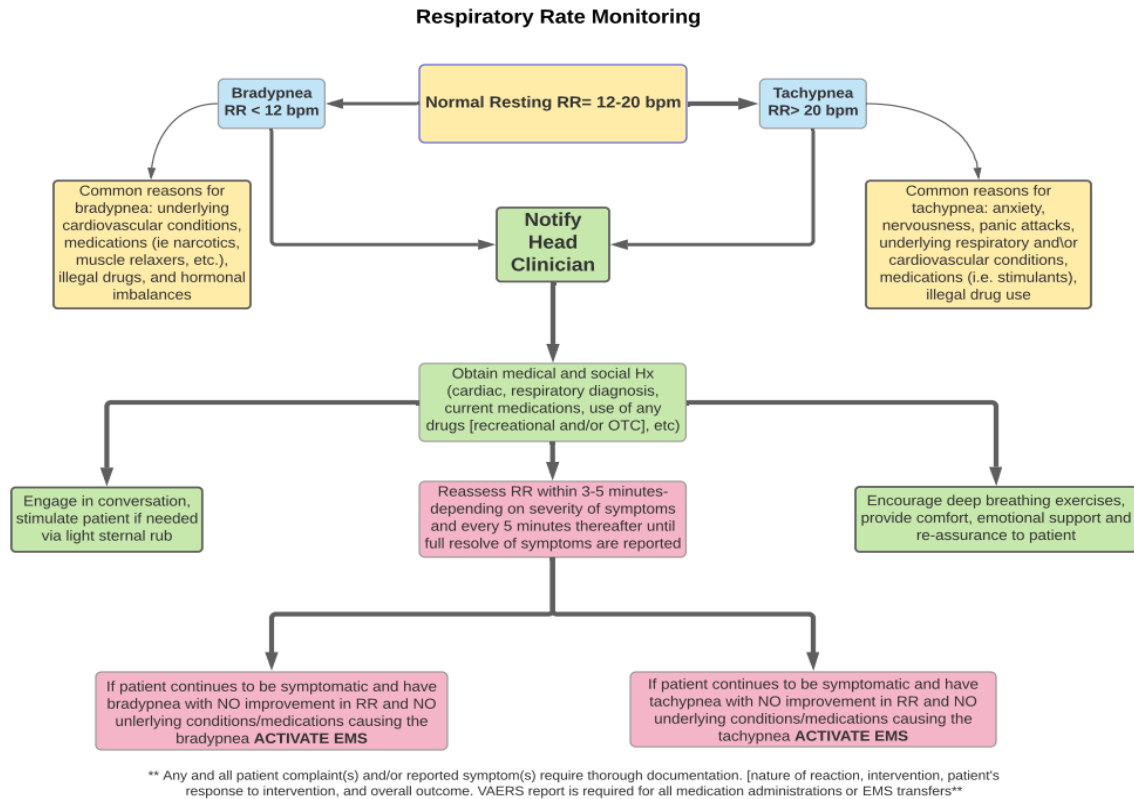


\*\* Any and all patient complaint(s) and/or reported symptom(s) require thorough documentation. [nature of reaction, intervention, patient's response to intervention, and overall outcome. VAERS report is required for all medication administrations or EMS transfers\*\*

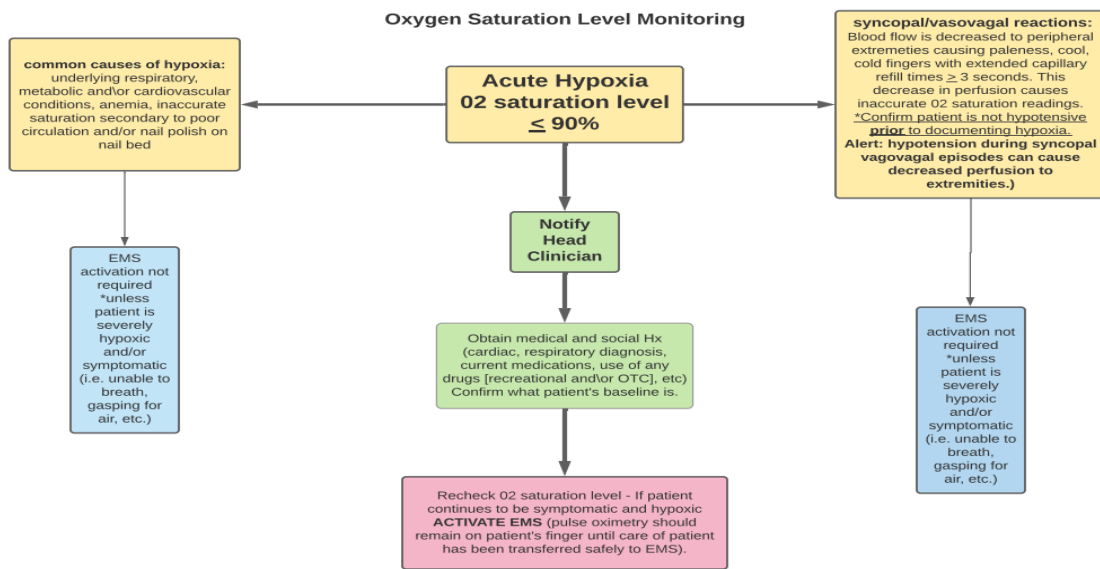
**Table 1.3 - Blood Pressure Monitoring**



**Table 1.4 - Respiratory Rate Monitoring**



**Table 1.5 - Oxygen Saturation Level Monitoring**



\*\* Any and all patient complaint(s) and/or reported symptom(s) require thorough documentation. [nature of reaction, intervention, patient's response to intervention, and overall outcome. VAERS report is required for all medication administrations or EMS transfers\*\* EMS must be called if requested by patient.\*\*

**Table 1.6 – Emergency Standing Orders**

**Standing Orders/Intervention:**

- **Adult/Pediatric 66lbs or >:**
  - **Epinephrine** 0.3 mg (0.3mL) of 1:1000 IM x 1 STAT to lateral thigh and repeat every 5-15 minutes as needed for non-improving anaphylaxis symptoms. [max of 3 doses]
  - **Benadryl** 25-50mg (0.5mL-1.0mL) IM x 1 as needed – as conjunctive therapy ONLY with Epinephrine for treatment of anaphylaxis for rash, itching, or hives.
- **Pediatric 33-65lbs:**
  - **Epinephrine** 0.15 mg (0.15mL) of 1:1000 IM autoinjector x 1 STAT to lateral thigh and repeat every 5-15 minutes as needed for non-improving anaphylaxis symptoms. [max of 3 doses]
  - **Benadryl** 25mg (0.50mL) IM x 1 as needed – as conjunctive therapy ONLY with Epinephrine for treatment of anaphylaxis for rash, itching, or hives.
- **Infants/Toddlers < 32lbs:**
  - **Epinephrine** 0.1 mg (0.1mL) of 1:1000 IM x 1 STAT to lateral thigh and repeat every 5-15 minutes as needed for non-improving anaphylactic symptoms. [max of 3 doses]

**Table 1.7 – Pediatric Vital Sign Guide**

**AP** AFFILIATED PHYSICIANS  
ON-SITE VACCINATION AND WELLNESS SERVICES

# Pediatric Vital Signs Normal Ranges

*Age Group (weight in kg)	Age (years)	Height (cm)	Blood Pressure (mmHg)(50th-90th percentile)				Respiratory Rate	Heart Rate	
			Boys		Girls			Awake	Sleeping
			Systolic	Diastolic	Systolic	Diastolic			
<b>Infant</b>	1-12 months		72-104	37-56	72-104	37-56	30-60	100-170	75-160
<b>Toddler</b> (10-14 Kg)	1	77-87	86-101	41-54	85-102	42-58	24-40	80-150	60-90
	2	86-98	89-104	44-58	89-106	48-62			
<b>Preschooler</b> (14-18Kg)	3	92-105	90-105	47-61	90-107	50-65	20-34	70-130	
	4	98-113	92-107	50-64	92-108	53-67			
	5	104-120	94-110	53-67	93-110	55-70			
<b>School-age</b> (20-42 Kg)	6	111-127	90-109	59-73	91-108	59-73	15-30	65-120	
	7	116-134	91-111	60-74	92-110	60-74			
	8	120-140	93-113	60-75	94-112	60-75			
	9	125-145	94-115	61-75	95-114	61-76			
	10	130-151	96-117	62-76	97-116	62-77			
	11	135-157	98-119	62-77	99-118	63-78			
	12	141-164	100-121	63-78	100-120	64-78			
<b>Adolescent</b> (50 Kg)	>13	147-172	102-124	64-80	102-121	64-79	12-20	55-90	50-90

[www.affiliatedphysicians.com](http://www.affiliatedphysicians.com)

**IV. Resources:**

- A. [ACIP Adverse Reactions Guidelines for Immunization | Recommendations | CDC](#)
- B. [Medical Management of Vaccine Reactions in Adults in a Community Setting \(immunize.org\)](#)
- C. [Vasovagal syncope - Symptoms and causes - Mayo Clinic](#)
- D. [Syncope \(Fainting\) | American Heart Association](#)