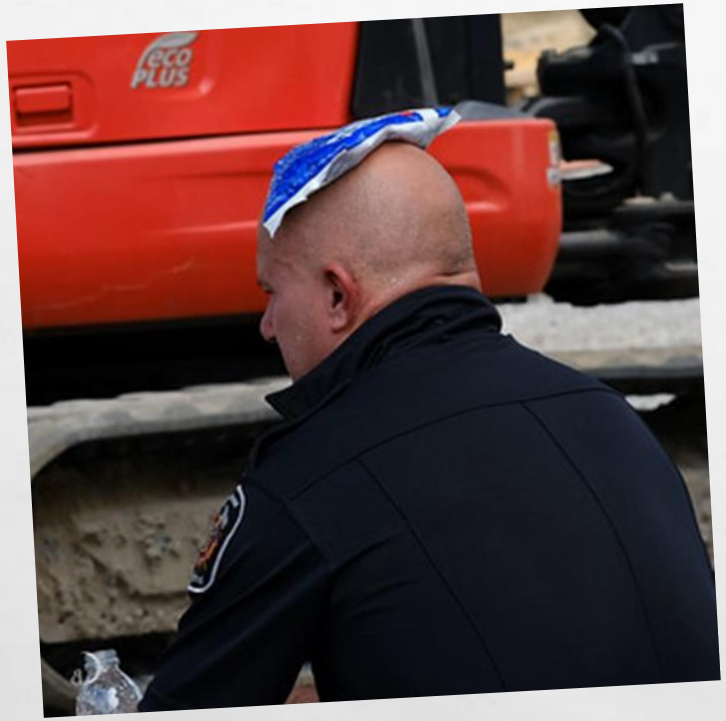


THE HEAT IS ON

MC HENRY WESTERN LAKE COUNTY EMS

2022 SUMMER EMERGENCIES

BRAD WASIELE, FF/PM, LI

ANAPHYLAXIS/ ALLERGIC REACTIONS

WHAT DO WE DO?

~IMMEDIATELY ACCESS THE ABC'S OF THE PATIENT

~ASK YOURSELF: IS THEIR AUDIBLE STRIDOR, URTICARIA, FLUSHED SKIN, DIFFICULTY BREATHING?

~ ACCESS THE AIRWAY FOR THINGS LIKE: WHEEZING, AIRWAY EDEMA, RESPIRATORY EFFORT AND PERFUSION ADEQUACY.

~ ASK ABOUT A HX OF ALLERGIES, WAS AN EPI-PEN USED?

~FIX AIRWAY PROBLEMS FIRST!

~SCRAPE AWAY THE STINGER WITH A FLAT, HARD SURFACED OBJECT, LIKE A CREDIT CARD, TO STOP THE INFLUX FROM THE STINGER.

~

LOCAL OR MILD SYSTEMIC REACTION

- THE IMMUNE SYSTEM IS DESIGNED TO PROTECT THE BODY AGAINST INVASION BY HARMFUL FOREIGN BODIES. ALLERGIES HAPPEN WHEN YOUR BODY HAS AN IMMUNOLOGICAL REACTION TO A FOREIGN SUBSTANCE THAT DOESN'T NORMALLY TRIGGER AN IMMUNE RESPONSE IN MOST PEOPLE. THIS COULD BE SOME TYPES OF FOOD, POLLEN, SAWDUST, INSECT VENOM, SHELLFISH, ANYTHING.
- ANTIBODIES PRODUCED BY THE IMMUNE SYSTEM TAG THESE NORMALLY HARMLESS SUBSTANCES AS ALLERGENS. THE IMMUNE SYSTEM'S REACTION TO THESE ALLERGENS CAN CAUSE AN INFLAMMATION OF THE SINUSES, WINDPIPE, SKIN OR DIGESTIVE SYSTEM.

LOCAL OR MILD SYSTEMIC REACTION

- ACCORDING TO THE AMERICAN ACADEMY OF ALLERGY, ASTHMA AND IMMUNOLOGY, UP TO 50 MILLION PEOPLE LIVING IN THE UNITED STATES HAVE AN ALLERGIC DISEASE. PEOPLE HAVE ALLERGIC REACTIONS TO DIFFERENT THINGS, AND THE SEVERITY VARIES FROM PERSON TO PERSON. THEY COULD BE AS MINOR AS TEMPORARY RASHES OR AS LIFE-THREATENING AS AN ANAPHYLACTIC SHOCK.
- AN ALLERGIC REACTION DOESN'T LOOK THE SAME ON ANYONE. IF YOU EXPERIENCE ANY OF THESE SYMPTOMS IN RESPONSE TO A FOREIGN SUBSTANCE, IT MAY A SIGN YOU'RE ALLERGIC TO IT.

TREATING MILD REACTION

- MILD REACTIONS WILL PRESENT WITH STABLE ABC'S AND NO AIRWAY COMPROMISE.
- YOU MIGHT NOTE A RASH, SWELLING, SNEEZING, NASAL CONGESTION, ITCHING, BUT YOU WILL HAVE CLEAR LUNG SOUNDS.

- <u>THESE PT'S WILL GET:</u>
- ALS: DIPHENHYDRAMINE, 1MG/KG TO A MAX OF 50MG IM THE VASTUS LATERALUS MUSCLE OF THE LEG IVP
- BLS: BY MOUTH (PO)

MODERATE SYSTEMIC REACTION

WHAT ARE THEY PRESENTING WITH??

- ANXIETY, ITCHING, FLUSHING, HIVES (URTICARIA) AND SWELLING OR EDEMA.
- THEY MAY HAVE BRONCHOSPASM, DYSPNEA, COUGH, WHEEZE, STRIDOR, HOARSENESS AND EVEN CHEST TIGHTNESS.
- THEIR GI SYSTEM CAN SHOW ABDOMINAL CRAMPING, PAIN, DIARRHEA, NAUSEA OR EVEN VOMITING.
- CHECK THAT AIRWAY! ARE THEY DROOLING? DO THEY HAVE OR ARE SHOWING SIGNS OF EDEMA OF THE AIRWAYS? IS THEIR TONGUE OR THROAT ITCHING?

MODERATE SYSTEMIC REACTION

- IF THE SYSTOLIC BP IS GREATER THAN/EQUAL TO 90 OR A MAP GREATER/EQUAL TO 65, THEY GET **EPINEPHRINE.** 1MG/1ML **0.3 MG** -***NOTE: DO NOT DELAY TRANSPORT WAITING ON PT RESPONSE, THIS IS AN EMERGENT PATIENT.***
- ***THEN…..***
  - **ALBUTEROL** 2.5MG & IPRATROPIUM 0.5MG VIA HHN/MASK. (IF WHEEZING)
  - **DIPHENHYDRAMINE (BENADRYL)** 50MG IVP/IO, OR IM IF NO IV OR IO.

SEVERE REACTION/ ANAPHYLACTIC SHOCK

SBP LESS THAN 90 OR A MAP PRESSURE LESS THAN 65

- THIS PT MAY PRESENT WITH AMS, DECREASED OR ABSENT LUNG SOUNDS, SEVERELY IMPAIRED AIRWAY, SYNCOPE, FAINTNESS OR EVEN COMA.
- TREATMENT WHILE MAINTAINING THE AIRWAY AND OBTAINING VASCULAR ACCESS IS EPINEPHRINE.
- EPINEPHRINE 1MG/1ML 0.5MG IM IN THE VASTUS LATERALUS MUSCLE, DO NOT DELAY TRANSPORT WAITING FOR PT RESPONSE TO MEDICATION, THIS IS A TIME SENSITIVE PT.

SEVERE REACTION/ ANAPHYLACTIC SHOCK

AFTER VASCULAR ACCESS IS OBTAINED AND IS SUCCESSFUL:

- IV NS CONSECUTIVE 200ML IVF FLUID CHALLENGES
  - THE GOAL WITH THE IV NS CHALLENGES IS TO OBTAIN A SBP GREATER THAN OR EQUAL TO 90 OR A MAP OF 65
  - **EPINEPHRINE** (1MG/10ML) TITRATE 0.1MG IVP/IO DOSES Q. 1 MINUTE TO A TOTAL DOSE OF 2MG
  - REASSESS AFTER EACH 0.1MG
  - IF YOUR PT IS ON BETA BLOCKERS AND NOT RESPONDING TO EPINEPHRINE: GLUCAGON 1MG IVP/IO FOR ALS CARE. IN/IM FOR BLS PROVIDERS.

SEVERE REACTION/ ANAPHYLACTIC SHOCK

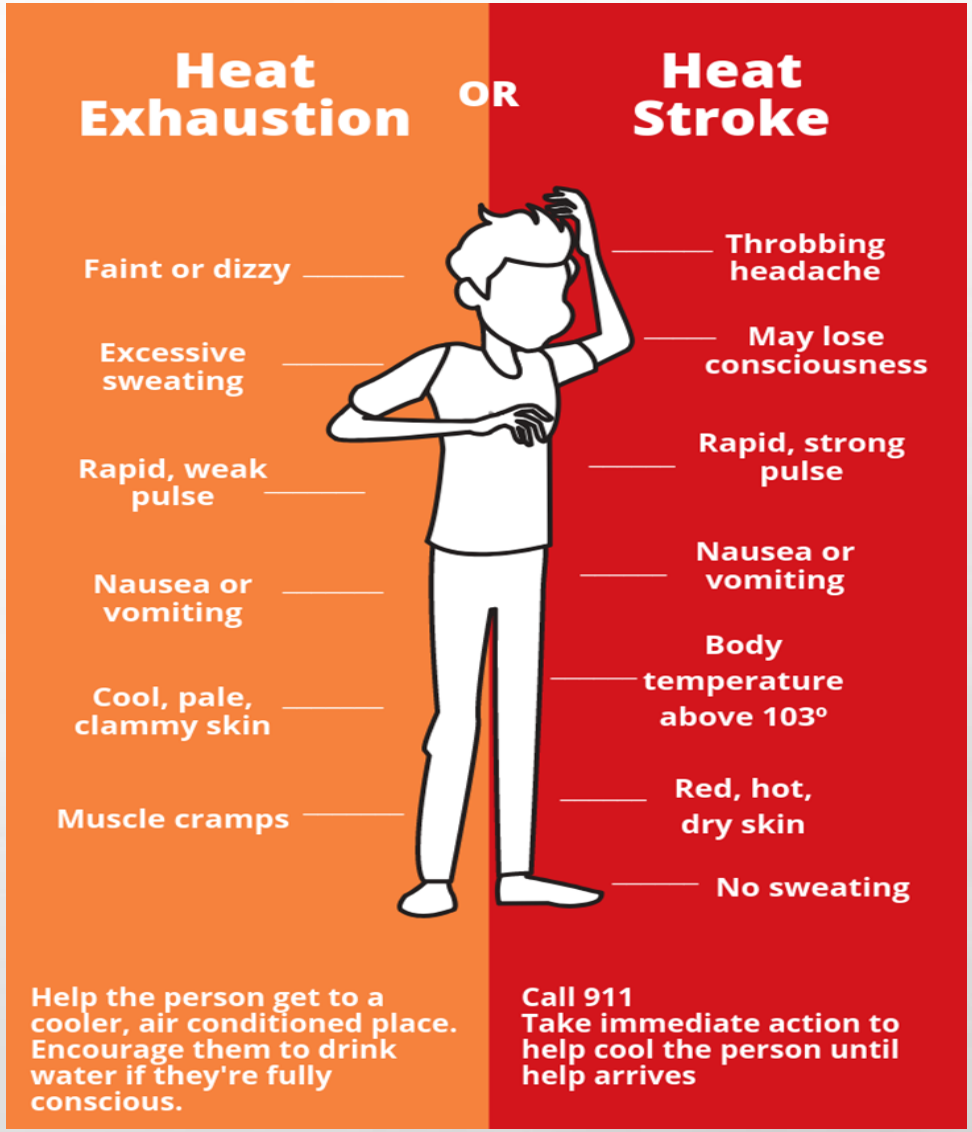
IF YOUR ANAPHYLACTIC SHOCK PT HAS WHEEZING:

- **ALBUTEROL** 2.5MG & IPRATROPIUM 0.5MG VIA HHN/MASK. ADD O2 6L/NC IF SPO2 IS <94%. MAY REPEAT X1 ENROUTE. CONTACT OLMC FOR ADDITIONAL DOSES FOR LONGER TRANSPORT TIMES.
- **DIPHENHYDRAMINE/BENADRYL** 50MG IVP.IO, IF NO VASCULAR ACCESS, GIVE IM.

WHY USE EPI?

- LETS REFRESH…WHAT DOES EPI DO?
- IT IS A VASO-CONSTRICTOR AND BRONCHODILATOR.
- SO WHY USE IT?? BECAUSE THE OPPOSITE IS OCCURRING IN ANAPHYLAXIS: YOUR BODY IS VASODILATING (REDUCING YOUR BLOOD PRESSURE) AND BRONCHO-CONSTRICTING, CAUSING YOUR PT TO HAVE SHORTNESS OF BREATH, DIFFICULTY BREATHING OR WHEEZING.

HEAT STROKE/HEAT EXHAUSTION



HEAT EXHAUSTION

- HEAVY SWEATING, WEAKNESS, COOL, PALE, MOIST SKIN.
- FAST, WEAK PULSES.
- IF MENTAL STATUS IS COMPROMISED, THEY ARE MOST LIKELY EXPERIENCING HEAT STROKE.

HEAT EXHAUSTION.. WHAT DO WE DO??

- MOVE TO A COOL ENVIRONMENT AND REMOVE AS MUCH OF THEIR CLOTHING AS POSSIBLE.
- VOMITING POSSIBLE, BE PREPARED TO SUCTION AND ADMINISTER ONDANSETRON 4MG DISSOLVING TABLET (BLS) OR SLOW IVP (ALS).
- MONITOR THEIR ECG.
- MONITOR AND RECORD YOUR PT'S MENTAL STATUS, SEIZURE PRECAUTIONS.

HEAT STROKE – CRITICAL

- THESE PTS WILL HAVE A HIGH BODY TEMPERATURE, ABOVE 103 DEGREES FARENHEIGHT
- THEY WILL PRESENT WITH: HOT, RED, DRY OR MOIST SKIN.
- RAPID PULSE
- ALTERED MENTAL STATUS AND POSSIBLE UNCONSCIOUSNESS

HEAT STROKE….WHAT DO WE DO?

- SPECIAL CONSIDERATIONS:
  - ANTICIPATE ICP, CHECK FOR **HYPOGLYCEMIA**
  - IS SBP 110/NORMAL FOR AGE/ OR ABOVE: IV NS, TKO (MAY USE COLD NS) ELEVATE THE HEAD OF THE STRETCHER 10-15 DEGREES
  - IF SIGNS OF **HYPOPERFUSION**:
    - PLACE SUPINE WITH FEET ELEVATED BUT NOT TRENDELENBURG POSITION
    - NS IVF CHALLENGE IN CONSECUTIVE ML INCREMENTS (PEDS 10ML/KG) TO MAINTAIN A SBP GREATER THAN OR EQUAL TO 90 OR A MAP GREATER THAN OR EQUAL TO 65

    CAUTION: PT W\AT RISK FOR PULMONARY AND CEREBRAL EDEMA

HEAT STROKE…. WHAT DO WE DO CONTINUED

- MONITOR ECG
- MOVE TO A COOL ENVIRONMENT AND INITIATE RAPID COOLING BUT AVOID SHIVERING.
  - REMOVE AS MUCH CLOTHING AS POSSIBLE
  - APPY CHEMICAL COLD PACKS TO PALMS, SOLES OF FEET AND CHEEKS
  - MAY ALSO APPLY CCP'S TO THE NECK, LATERAL CHEST, GROIN, AXILLAE, TEMPLES AND/OR BEHIND THE KNEES
  - SPONGE OR MIST W/ COOL WATER AND FAN
  - FOR GENERALIZED TONIC/CLONIC SEIZURE ACTIVITY:
  - MIDAZOLAM STANDARD DOSES FOR SEIZURES (BOTH ADULTS AND PEDS)

CREDITS

- HTTPS://ENTIRELYHEALTH.COM/
- REGION IX MCHENRY WESTERN LAKE COUNTY EMS SYSTEM STANDARD OPERATING PROCEDURES
- GOOGLE.COM/PICTURES
-