EMERGENCY INCIDENT REHABILITATION

PURPOSE

To ensure the physical and mental condition of responders operating at the scene of an emergency or training exercise does not deteriorate to a point that effects the safety and health of the responder, fellow responders, or the safety and integrity of the operation.

Agency leadership are strongly encouraged to review the United States Fire Administration guide to Emergency Incident Rehabilitation and the National Fire Protection Association Standard 1584 to assist in placing this policy into context. Regardless of how rehabilitation is implemented, it is absolutely crucial that all responders follow this policy. No one, including officers, should be allowed to skip the rehabilitation process as enforcement of this policy will have a measureable effect on the long-term well-being of all responders.

POLICY

The following policy is strongly recommended for events, including training, fireground operations, hazardous materials incidents, prolonged extrication or law enforcement incidents, and many other events where emergency response personnel are engaged in activities that pose a risk of exceeding a safe level of physical or mental endurance. This policy defines the minimum expectations of Emergency Incident Rehabilitation in the Monroe-Livingston Region, however agencies may, upon approval of their Medical Director, choose to implement additional criteria for rest, re-hydration, or physiologic measures provided they are not less than the minimum expectations set forth herein.

EXPECTATIONS

1. It is the responsibility of all responders at the scene to monitor themselves and their personnel to ensure the safety, health and welfare of all responders by ensuring adequate rest and hydration following the recommendations set forth in this policy.

2. All providers are encouraged to participate in self-rehabilitation. This should ideally include time between work periods and/or SCBA changes whereby the provider is allowed to rest and consume appropriate fluids.

3. The Incident Commander shall consider the circumstances of each incident or training exercise early in the evolution of the incident or exercise, and make adequate provisions for the rest and rehabilitation for all personnel operating at the scene.

4. For any event where emergency response personnel are engaged in activities that pose a risk of exceeding a safe level of physical or mental endurance, it is recommended that the Incident Commander or Logistics Section Chief establish the following minimum:

    a. Rehabilitation Area (Responsibility of Rehabilitation Manager)
        - Ample space with preference to seating for responders
        - Protection from the elements, fumes, or hazards
        - Accessible by EMS
        - Clearly identified
        - Temperature control including active cooling and re-warming of responders as indicated by environmental conditions
        - Air monitoring to include, at a minimum, carbon monoxide capability that is on and functioning at all times.
        - Re-hydration to include water and electrolyte replacement
        - Nutrition (as appropriate for the duration of the incident)
        - Staffing should include at least one Rehabilitation Manager with training of at least EMT, and BLS equipment to include oxygen, blood pressure cuff and pulse oximeter. Availability of an AED and Pulse-CO-Oximetry in proximity to the Rehabilitation Area is strongly encouraged.

    b. Treatment Area (Responsibility of Treatment Manager)
        - Separate, but in close proximity to the rehabilitation area
        - Protection from the elements, fumes or hazards
        - Accessible from the Rehabilitation Area
        - Clearly identified
        - Air monitoring to include, at a minimum, carbon monoxide capability that is on and functioning at all times
        - A private area to allow for assessment and management of responders and/or at least one staffed transporting ALS ambulance. Additional ALS ambulances may be required for larger incidents.

5. There should be at least one rehabilitation staff member for every 5 responders in the Rehabilitation Area.

6. For large incidents, it may be advisable to have more than one Rehabilitation and/or Treatment Area established. This decision should be made by the Incident Commander or their designee.

7. For incidents greater than a single alarm, it is recommended that a minimum of one fully staffed ALS transporting ambulance is available per alarm assignment. Additional transporting ambulances may be required depending on the type of operation, environmental conditions, and number of responders involved.

8. No personnel should enter the warm or hot zone of a declared Hazardous Materials Incident unless the Rehabilitation and Treatment areas have been established and staffed according to the policies and procedures of the respective Hazardous Materials Team. This must include an ALS transporting ambulance.

9. It is advised that the pre-hydration, when possible, occurs to include a minimum of 16 ounces of non-caffeinated fluids over the two hours prior to scheduled events, such as training exercises.

PROCEDURE

1. Responders should be detailed to the Rehabilitation Area by the Incident Commander or their designee after no more than 45 minutes of continuous hard labor, two SCBA cylinders, or after being decontaminated. The Incident Commander or Incident Safety Officer may direct personnel to the Rehabilitation Area at any time for reasons not mentioned above.

2. All responders must be decontaminated (if necessary) and remove personal protective equipment prior to entering the Rehabilitation Area.

3. All responders must follow their agency's accountability system when entering/department the Rehabilitation and/or Treatment Areas.

4. Upon entering the Rehabilitation Area, the responder is expected to do the following:
    a. Drink at least 12 ounces of fluid (water first, then half-strength electrolyte solution if available).
    b. Refrain from tobacco use (smoked, smokeless, or electronic) in the Rehabilitation or Treatment Areas.
    c. Heed the directives of the Rehabilitation Manager with regards to their disposition to the manpower/staging or the treatment areas.

5. The responder will be assessed by the Rehabilitation Manager or other medically trained personnel.

6. Any responder entering the rehabilitation area with complaints of chest pain, shortness of breath (beyond normal exertion), or altered mental status will be immediately moved to the Treatment Area and may not return to duty for the duration of the incident. This shall be immediately reported to the individual(s) responsible for scene safety, accountability, and/or command.

7. Every responder will be assessed for presence of other symptoms to include dizziness, weakness, nausea, headache, cramps, aches or pain, changes in gait, speech or behavior, mental/physical stress, exhaustion, and symptoms of heat or cold-related stress. These symptoms do not require immediate removal to the Treatment Area, but must resolve prior to returning to manpower/staging.

8. Every responder will have vital signs assessed to include Pulse, Respiratory Rate, Blood Pressure, and Pulse-Oximetry over a thirty-second period and recorded on the Incident Rehabilitation Log. Use of pulse co-oximetry is optional, but encouraged. These vital signs should be taken after the responder has had an opportunity to doff, rest, and hydrate.

9. Abnormal Vital Signs are considered any one of the following:
    a. Pulse >110 per minute
    b. Respirations >20 per minute
    c. Systolic Blood Pressure >160
    d. Diastolic Blood Pressure >100
    e. SpO_2 <96% in ambient air
    f. SpCO >5% (if measured)

10. If on any vital sign exam an irregular pulse is identified that is not previously known to the responder, the responder should be moved to the Treatment Area for further evaluation. This shall be immediately reported to the individual(s) responsible for scene safety, accountability and/or command.

11. If the vital signs are within normal limits (as defined above) the responder is encouraged to drink at least 12 ounces of fluid and may return to manpower/staging after adequate rest.

12. If vital signs are abnormal (as defined above), the responder will be monitored for 10 minutes and encouraged to rest and consume appropriate fluids.

13. After no less than 10 minutes from the time of first abnormal vital signs taken in the Rehabilitation Area, the responder will be re-assessed and all vital signs retaken.

a. If vital signs are within normal limits, the responder may return to manpower/staging.
b. If vital signs continue to remain abnormal (as defined above), the responder will be observed for another 10 minutes and encouraged to rest and consume appropriate fluids.

14. After no less than 20 minutes from the time of first abnormal vital signs obtained, the responder will be re-assessed and all vital signs retaken.
    a. If vital signs are within normal limits, the responder may return to manpower/staging.
    b. If vital signs continue to remain abnormal (as defined above), the responder will be referred to the Treatment Area. This shall be immediately reported to the individual(s) responsible for scene safety, accountability and/or command.

15. No responder may return to the manpower/staging area unless they fulfill the following:
    a. No symptoms of dizziness, weakness, nausea, headache, cramps, aches or pain, changes in gait, speech or behavior, and symptoms of heat or cold-related stress.
    b. Pulse less than or equal to 110 per minute
    c. Respirations less than or equal to 20 per minute
    d. Systolic Blood Pressure less than or equal to 160
    e. Diastolic Blood Pressure less than or equal to 100
    f. SpO_2 greater than or equal to 96% in ambient air
    g. SpCO less than or equal to 5% (if measured)

16. Any responder moved to the Treatment Area should have care provided according to regional protocol.

17. All personnel should be encouraged to hydrate with at least 36 ounces of appropriate fluids over two hours after the conclusion if the incident.

INTERPRETING CO VALUES DURING INCIDENT REHABILITATION

1. The use of hand-held pulse co-oximetry devices is optional, and not required for Incident Rehabilitation.

2. The SpCO reading is to be used as a screening measure. Definitive carboxyhemoglobin determinations are performed via blood draw in the hospital setting. Any patient with complaints of chest pain, shortness of breath or altered mental status should receive oxygen by a non-rebreather mask and moved to the Treatment Area, regardless of SpCO reading.

3. The following CO treatment guidelines will pertain to the asymptomatic emergency responder on entry to the Rehabilitation Area.
    a. If SpCO < 5% and vital signs are within normal limits, the provider is encouraged to drink at least 12 ounces of fluid and may return to the manpower/staging area after a minimum of 10 minutes rest.
    b. If SpCO is ≥ 5% and <12%, the responder may breathe ambient air and may not leave the rehabilitation area until their CO level is below 5%.
    c. If SpCO is ≥ 12% and <25%, the responder should be moved to the Treatment Area and receive high-flow oxygen until the SpCO is <5%.
    d. If SpCO is ≥ 25%, the responder will be moved to the Treatment Area and transported with high-flow oxygen to an emergency department.

DOCUMENTATION

1. All responders entering the Rehabilitation Area should have their name, vital signs, and disposition recorded on the Rehabilitation Log (Attached). This Log should be scanned and attached to the electronic PCR associated with the incident standby. A copy of the Rehabilitation Log and Treatment Log (if applicable) can and should be provided to the Incident Commander, Safety Officer(s), or Chief Officer(s) of the responding departments.

2. A separate PCR must be completed for any responder referred to the Treatment Area, regardless of whether the responder was transported by EMS. Should the responder not wish transport, an informed refusal must be completed and the individual(s) responsible for scene safety, accountability and/or command shall be notified. Any PCR generated in the Treatment Area is an individual patient care treatment record and therefore subject to the medical records release policy of the EMS agency and should not be issued to the responder's Department without written permission from the responder-patient named on the PCR.

Approved by the Monroe-Livingston REMAC 4/15/2019