THE REGIONAL EMERGENCY MEDICAL SERVICES COUNCIL OF NEW YORK CITY, INC.

NYC REMAC

Advisory No.	2020-13
Title:	**Termination of Resuscitation (TOR) For Futility Physician Guideline**
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The Regional Emergency Medical Advisory Committee (REMAC) of New York City is responsible to develop, approve and implement prehospital treatment and transport protocols for use within the five boroughs of the City of New York. The Regional Emergency Medical Advisory Committee (REMAC) of New York City operates under the auspices of Article Thirty of the New York State Public Health Law.

Attached is the revised Termination of Resuscitation (TOR) Physician Guideline. This document has been created to assist the Online Medical Control Physician by identifying when patients in cardiac arrest may be considered for prehospital termination of resuscitation.

This guideline is also being directed to EMS personnel and EMS agency medical directors to keep them informed of regional guidelines for and exceptions to Termination of Resuscitation.

This guideline does not replace or over-ride the clinical judgment of the Online Medical Control Physician, or his/her final decision regarding prehospital Termination of Resuscitation.

Current and Updated Protocols can be accessed at the Regional EMS Council website: www.nycremsco.org.

Owners/operators of Ambulance and ALS First Response Services providing prehospital medical treatment within the five boroughs of the City of New York are responsible to provide copies of the NYC REMAC Prehospital Treatment Protocols to their personnel, and to ensure that Service Medical Directors and EMS personnel are informed of all changes/updates to the NYC REMAC Prehospital Treatment Protocols.

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TERMINATION OF RESUSCITATION (TOR) GUIDELINES

The NYC REMAC has issued Termination of Resuscitation (TOR) guidelines to assist Online Medical Control (OLMC) physicians in identifying patients in cardiac arrest that may be considered for prehospital termination of resuscitation.

This guideline is based on recommendations from the American Heart Association for out-of-hospital cardiac arrests (OHCA)[1] as well as additional studies that further delineate duration of resuscitative efforts and its relationship to neurological[2] [3] [4] and overall hospital outcomes[5], as well as applications of TOR[6] [7] [8] guidelines in the pre-hospital setting.

This guideline is for EMS personnel, OLMC physicians, and EMS agency medical directors to aid in standardization of termination of resuscitation in the prehospital setting.

This guideline does not replace or over-ride the clinical judgment of the OLMC physician when determining prehospital TOR.

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[1] American Heart Association. 2015 American Heart Association guidelines for cardiopulmonary resuscitation and emergency cardiovascular care**. Circulation**. 2015; *132*:S383-396.
[2] Mutter EL, Abella BS. Duration of cardiac arrest resuscitation: deciding when to call the code. Circulation. 2016; 133:1338-1340
[3] Goto Y, Funada A, et al. Relationship between the duration of cardiopulmonary resuscitation and favorable neurological outcomes after out-of-hospital cardiac arrest resuscitation: a prospective, nationwide, population-based cohort study. J Am Heart Assoc. 2016;5e:002189
[4] Cheong R et al. Termination of resuscitation rules to predict neurological outcomes in out-of-hospital cardiac arrest for an intermediate life support prehospital system. Prehosp Emerg Care. 2016;20:623-629
[5] Reynolds JC et al. The association between duration of resuscitation and favorable outcome after out-of-hospital cardiac arrest: implications for prolonging or terminating resuscitation. Circulation. 2016;116:023309
[6] Verhaert DVM et al. Termination of resuscitation in the prehospital setting: a comparison of decisions in clinical practice vs. recommendations of a termination rule. Resuscitation. 2016;100:60-65
[7] Morrison LJ et al. Implementation trial of the basic life support termination of resuscitation rule: reducing the transport of futile out-of-hospital cardiac arrests. Resuscitation. 2014;85:486-491
[8] Fukada T et al. Applicability of the prehospital termination of resuscitation rule in an area dense with hospitals in Tokyo: a single-center, retrospective, observational study. Am J Emerg Med. 2014;32:144-149

TERMINATION OF RESUSCITATION (TOR) GUIDELINES

Termination of Resuscitation shall be considered for cardiac arrests with all of the following criteria:

Patient Characteristics

- Age ≥ 18 years old
- Arrest etiology is non-traumatic or is not due to any of the following:
  - Drowning
  - Hypothermia
  - Suspected pregnancy
  - Lightning injury/electrocution
  - Suspected overdose
  - Hanging/asphyxia

Resuscitation Components

- Unwitnessed arrest without bystander CPR
- At least 30 minutes of EMS resuscitation time, including at least ALS resuscitative care for 20 minutes
- No return of spontaneous circulation (ROSC) during resuscitation at any time
- No defibrillation is performed during resuscitation at any time
- Rhythm remains in asystole or PEA (rate < 40) throughout resuscitation
- Arrest does not take place in a public area

Important Exceptions to TOR Guidelines

1. Resuscitation attempts should be immediately terminated upon presentation of a valid DNR (Do Not Resuscitate) order. TOR criteria do **not** need to be met to halt resuscitation when a patient's DNR status is identified. The following DNR orders may be accepted by prehospital providers (other DNR orders **cannot** be honored in the prehospital setting):
   a. New York State Department of Health (DOH) Out-of-Hospital DNR form or DNR bracelet.
   b. MOLST (Medical Orders for Life-Sustaining Treatment) form indicating DNR status.
   c. Physician's DNR order in the medical chart when the patient is in the medical care facility under the physician's care.