REGIONAL EMERGENCY MEDICAL ADVISORY COMMITTEE

NEW YORK CITY

PREHOSPITAL TREATMENT PROTOCOLS

APPENDICES

July 2006
Version 080106

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PROTOCOL APPENDICES

APPENDIX A
TELEPHONE DIRECTORY AND REFERRALS

EMS OFFICES	
Regional EMS Council of NYC	(212) 870-2301
Regional Emergency Medical Advisory Committee (REMAC) of NYC	(212) 870-2301
NYS Dept. of Health (Central Office)	(518) 402-0996
NYS Dept. of Health – NYC Field Office	(212) 268-6632

FDNY BUREAU OF EMERGENCY MEDICAL SERVICES	
Telemetry	(718) 899-5062
Toll Free	(800) 281-TELM (8356)
EMS Operations	(718) 999-2770
Division of Training	(718) 352-7001
REMAC Testing	(718) 999-2790
Dispatch Boards	
Manhattan North	(718) 422-7195
Manhattan Central	(718) 422-7193
Manhattan South	(718) 422-7191
Bronx North	(718) 422-7190
Bronx South	(718) 422-7188
Queens West	(718) 422-7185
Queens Auxiliary	(718) 422-7186
Queens East	(718) 422-7187
Brooklyn North	(718) 422-7184
Brooklyn Central	(718) 422-7182
Brooklyn South and Staten Island	(718) 422-7180
Citywide	(718) 422-7395
Notifications	(718) 416-7373

ABUSE/DOMESTIC VIOLENCE	
NYS Child Abuse/Maltreatment Register (Mandated Reporter Express Line)	**(800) 635-1522**
NYS 24 Hour Child Abuse Hot-Line	(800) 342-3720
Domestic Violence 24 Hour HOT-LINE	(800) 621-4673 (HOPE)

CRIME VICTIMS	
Crime Victims 24 Hour Hot-Line	(212) 577-7777
State Crime Victims Compensation Board	(212) 417-5160
Sex Crimes Report Line (NYCPD)	(212) 267-7273

APPENDIX A (continued)

TELEPHONE DIRECTORY AND REFERRALS

AGING	
NYC Department for the Aging Central Information and Referral	(212) 442-1000
Social Security (MEDICARE)	(800) 772-1213
Alzheimer's Resource Center	(212) 442- 3086

CPR TRAINING	
Regional EMS Council of NYC	(212) 870-2301
New York Heart Association	(212) 661-5335
American Red Cross	(212) 787-1000

SOCIAL SERVICES	
Human Resources Administration General Information	(877) 474-8411
Utility Cut-Off Emergencies (Public Service Assistance)	(800) 342-3355
Legal Services (Legal Aid Society)	(212) 577-3300

OTHER SERVICES	
ASPCA (Injured Animals)	(718) 649-8600
Transportation (NYC Transit Authority)	(718) 330-1234
Gas Leaks	(718) 643-4050
POISON Control	(212) POISONS (764-7667)

APPENDIX B
PATIENT ASSESSMENT

ADULT PRIMARY SURVEY

	Assessment	Management
Scene size-up	▪ Body Substance Isolation ▪ Scene safety ▪ Mechanism of Injury/Nature of Illness ▪ Consider C-spine	▪ Goggles, gloves, gown, mask – as needed ▪ Ensure safety of **self** & **partner**, patient & bystanders
Initial	▪ General impression of the patient ▪ Level of Consciousness ▪ Chief complaint	▪ **A-**Alert ▪ **V**-Responds to Verbal stimuli ▪ **P**-Responds to Painful stimuli ▪ **U**-Unresponsive – no gag or cough
Airway and Breathing	▪ Manage airway ▪ O2, as needed ▪ Ensure adequate ventilation ▪ Treat any life threatening airway or breathing problems	▪ Modified Jaw Thrust ▪ Suction, as needed ▪ OPA/NPA, as needed ▪ CPR, as needed
Circulation	▪ Skin color ▪ Assess for pulses (BP estimation) *-Radial = 80+* *-Femoral = 70+* *-Carotid = 60+* ▪ Major Bleeding	▪ Control any obvious bleeding ▪ Elevation of legs, as needed ▪ Support circulation
Transport Decision	▪ Identify speed of transport	▪ Immediate or continued assessment
CUPS	▪ **For transport decision only**	

DETERMINE THE PATIENT CUPS STATUS (C.U.P.S.)

APPENDIX B (continued)
PATIENT ASSESSMENT

PEDIATRIC PRIMARY SURVEY

	Assessment	Management
Scene size-up	▪ Body Substance Isolation ▪ Scene safety ▪ Mechanism of Injury/Nature of Illness ▪ Consider C-spine	▪ Goggles, gloves, gown, mask – as needed ▪ Ensure safety of **self** & **partner**, patient & bystanders
Initial	▪ General impression of the patient ▪ Level of Consciousness ▪ Chief complaint	▪ **A-**Alert ▪ **V**-Responds to Verbal stimuli ▪ **P**-Responds to Painful stimuli ▪ **U**-Unresponsive – no gag or cough
Airway and Breathing	▪ Manage airway ▪ O2, as needed ▪ Ensure adequate ventilation ▪ Treat any life threatening airway or breathing problems	▪ Modified Jaw Thrust ▪ Suction, as needed ▪ OPA/NPA, as needed ▪ CPR, as needed
Circulation	▪ Skin color ▪ Assess for pulses (BP estimation) ▪ Major Bleeding	▪ Control any obvious bleeding ▪ Elevation of legs, as needed ▪ Support circulation
Transport Decision	▪ Identify speed of transport	▪ Immediate or continued assessment
CUPS	▪ **For transport decision only**	

DETERMINE THE PATIENT CUPS STATUS (C.U.P.S.)

Assess respiratory effort
- ⇒ **Use of accessory muscles**
- ⇒ **Sternal retractions**
- ⇒ **Stridor/grunting**
- ⇒ **Posturing**

Normal BP estimate: 90+ (2 x child's age)

APPENDIX B (continued)

PATIENT ASSESSMENT

DETERMINE THE PATIENT STATUS (C.U.P.S.)

For transport decision only

Critical	▪ Patients either receiving CPR, in respiratory arrest or requiring and receiving life-sustaining ventilatory/circulatory support.
Unstable	▪ Poor general impression ▪ Unresponsiveness with no gag or cough reflexes ▪ Responsive but unable to follow commands ▪ Difficulty breathing ▪ Pale skin or other signs of poor perfusion (shock)
Potentially Unstable	▪ Complicated childbirth ▪ Uncontrolled bleeding ▪ Severe pain in any part of the body ▪ Severe chest pain, especially with a systolic of BP of less than 100 mm Hg
Stable	▪ Minor illness, minor isolated injury, uncomplicated extremity injuries, and/or any patient that cannot be categorized as Critical, Unstable or Potentially unstable.

APPENDIX C
DO NOT RESUSCITATE ORDER

The following information regarding DNR is from: New York State Department of Health Bureau of Emergency Medical Services, Policy Statement # 99 – 10, "Frequently Asked Questions re: DNR's". This policy, and others issued by the NYS DOH BEMS, can be found at the following NYS DOH BEMS web address: www.health.state.ny.us/nysdoh/ems/main.htm. The text of this policy has been formatted to fit this page, but has not been altered in any other way.

PURPOSE

The purpose of this statement and the frequently asked questions (FAQ) is to provide pre-hospital providers with clarification and information on accepting non-hospital and hospital Do Not Resuscitate Orders (DNR). Readers are referred to PHL § 29-B and DOH Memo 92-32, DNR Orders that are the governing documents for detailed discussions on the subject. This policy *does not* supercede any other DOH document.

These guidelines are intended to assist local emergency medical services (EMS) agencies in developing DNR policies. EMS agencies should develop policies that instruct crews how to properly respond to patients who have a DNR. DNR policies allowing patients to refuse resuscitation ensure that patient's legal rights are honored and are a critical part of the healthcare and EMS systems. Patients must be provided their legal and ethical rights to consent to or refuse medical care in the prehospital setting. DNR patients are generally, although not always, victims of terminal illnesses, and are encountered in skilled nursing facilities, private residences and other settings. They may or may not be clients of hospices. In some cases, patients use the EMS system solely to obtain medical transportation. In other cases accident victims may present a DNR order.

Despite instructions not to perform resuscitation or call an ambulance, family members and employees of nursing facilities frequently activate 9-1-1 when death is imminent.

In addition to providing palliative care for patients, prehospital care providers may benefit families by assisting in determining when death has occurred. This *may* be an appropriate role for the EMS system although it should be restricted to private residences and not to licensed facilities which are expected to have policies for determining death by house medical staff.

EMS agencies are encouraged to meet with all components (hospitals, nursing facilities, hospices, etc.) of the health care system in their community in order to develop common understandings and policies to mutually manage patients with DNRs in emergency situations.

What is an "Out of Hospital" DNR?

The New York State Department of Health has an approved standard ***Out of Hospital DNR*** form that is legally recognized statewide for DNR requests occurring outside of Article 28 licensed facilities. This form is intended for patients *not* originating from a hospital or nursing home. The form (DOH-3474) is available on the Department's web site (www.health.state.ny.us) or from your local DOH EMS Office or health department. There are NO other approved Out of Hospital DNR forms. Copies can be kept on ambulances and made available to patients, facilities or physicians as a part of their community education program.

APPENDIX C (continued)
DO NOT RESUSCITATE ORDER

What is a recognized DNR Bracelet?

A standard DOH approved metal bracelet, worn by the patient, which includes a caduceus and the words "Do Not Resuscitate". EMT's should assume that a DNR order is in place authorizing the bracelet. It is not necessary to locate the written DNR order.

Where/When is an Out of Hospital DNR Order Valid?

For any patient *NOT* originating from a hospital or nursing facility including but not limited to:

- The patient's home
- A hospice
- A clinic

What determines the validity of the Out of Hospital DNR?

- Merely the presentation of a signed Out of Hospital DNR form (or a copy) or a DNR bracelet to the EMT.
- A good faith attempt to identify the patient. A witness who can reliably identify the patient is useful.
- Out of hospital DNRs do not expire.
- The Out of Hospital DNR form and/or bracelet should be taken with the patient.

Hospital & Nursing Home DNR orders

All Article 28 licensed facilities are required to issue, review and maintain DNR orders. EMS providers will honor hospital DNR orders for patient transports originating from the facility. The DNR *can not* be expired. The facility staff must provide a copy of the order and/or patient's chart with the recorded DNR order to the ambulance crew. Facilities, other than hospitals or nursing homes, are encouraged to use the NYS-DOH approved non-hospital DNR Form as supplemental documentation to avoid confusion and potentially unwanted resuscitation.

May EMS providers accept living wills or health care proxies?

A living will or health care proxy is *NOT* valid in the prehospital setting.

Under what circumstances may an EMS provider disregard an Out of Hospital DNR order?

- Any case where there is reasonable evidence to suggest that the DNR order has been revoked or cancelled.
- If the patient is conscious and states that they wish resuscitative measures, the DNR Form should be ignored.
- If the patient is unable to state his or her desire and a family member is present and requests resuscitative measures for the patient and a confrontational situation is likely to result, if the request is denied.
- A physician directs that the order be disregarded.

APPENDIX C (continued)

DO NOT RESUSCITATE ORDER

What procedures are and are not performed if the patient presents a DNR?

- Do not resuscitate (DNR) means, for the patient in cardiac or respiratory arrest, NO chest compressions, ventilation, defibrillation, endotracheal intubation, or medications.
- If the patient is NOT in cardiac or respiratory arrest, full treatment for all injuries, pain, difficult or insufficient breathing, hemorrhage and/or other medical conditions must be provided.
- Relief of choking caused by a foreign body is usually appropriate, although if breathing has stopped, ventilation should not be assisted.
- CPR must be initiated if no Out of Hospital or facility DNR is presented. If a DNR order is presented after CPR has been started, stop CPR.
- For unusual situations or questions on individual patient circumstances, contact medical control.

What documentation is required for a patient with a DNR order?

- Emergency medical technicians/paramedics should attach a copy of the Out of Hospital DNR form, hospital DNR order and/or copy of the patient's chart to the patient care report, along with all other usual documentation. It should be noted on the patient care report that a written DNR order was present including the name of the physician, date signed and other appropriate information.
- If the cardiac/respiratory arrest occurred during transport, the DNR Form should accompany the patient so that it may be incorporated into the medical record at the receiving facility.
- Patients who are identified as dead at the scene need not be transported by ambulance, however, local EMS agencies should consider transportation for DNR patients who collapse in public locations. In these cases it may be necessary to transport the individual to a hospital without resuscitative measures in order to move the body to a location that provides privacy. Local policies need to be coordinated with the Medical Examiner/Coroner and law enforcement.

Liability Protections

PHL§2977.12 "No person shall be subjected to criminal prosecution or civil liability, or be deemed to have engaged in unprofessional conduct, for honoring reasonably and in good faith pursuant to this section a non hospital order not to resuscitate, for disregarding a non hospital order pursuant to section ten of this section, or for other actions taken reasonably and in good faith pursuant to this section".

APPENDIX C (continued)
DO NOT RESUSCITATE ORDER

The following is a letter regarding Nursing Home DNR was issued by the New York State Department of Health, Office of Continuing Care, the text of the letter has been formatted to fit this page, but has not been altered in any other way.

July, 2001

DAL #01-07

Dear EMS Provider and Nursing Home Administrator,

The Division of Quality Assurance and Surveillance for Nursing Homes and ICF/MRs, which is responsible for the oversight of care and services provided in nursing homes, has received information from nursing homes that some emergency response services are concerned with complying with DNRs issued by nursing homes on behalf of residents of nursing homes. This letter is written to clarity the authority of a nursing home to issue a DNR order for one of its residents and that the order must be complied with by EMS services and their personnel.

Public Health Law classifies nursing homes as hospitals. While there are distinctions regarding these health care facilities and what they are licensed to do, there are no distinctions in the area of advanced directives (i.e. DNR orders). If the nursing home produces a Do Not Resuscitate (DNR) form or order for a resident being transferred by an ambulance the EMS services is obligated to honor that form pursuant to Article 29B. There is NO SPECIFIC FORM required by law of the nursing home, for an advanced directive, and each facility may have their own variation of the form. A nursing home is not required to use a pre-hospital DNR form. However, at a minimum the nursing home form shall be signed by a physician and a copy should be provided to the EMS services who is accepting the patient for transport. The DNR order remains in effect unless it has been specifically revoked. EMS personnel cannot refuse to honor a form simply because it is old.

EMS services should refer to PHL Section 29B and DOH memo 92-32, as well as Bureau of Emergency Medical Services Policy Statement 99-10 for additional information and guidance regarding DNR orders. This letter does not superced any other DOH policy.

If there are questions about this letter or the referred policies, please call the Bureau of EMS at (518) 402-0996 or Division of Quality Assurance and Surveillance for Nursing Homes at (518) 478-1133.

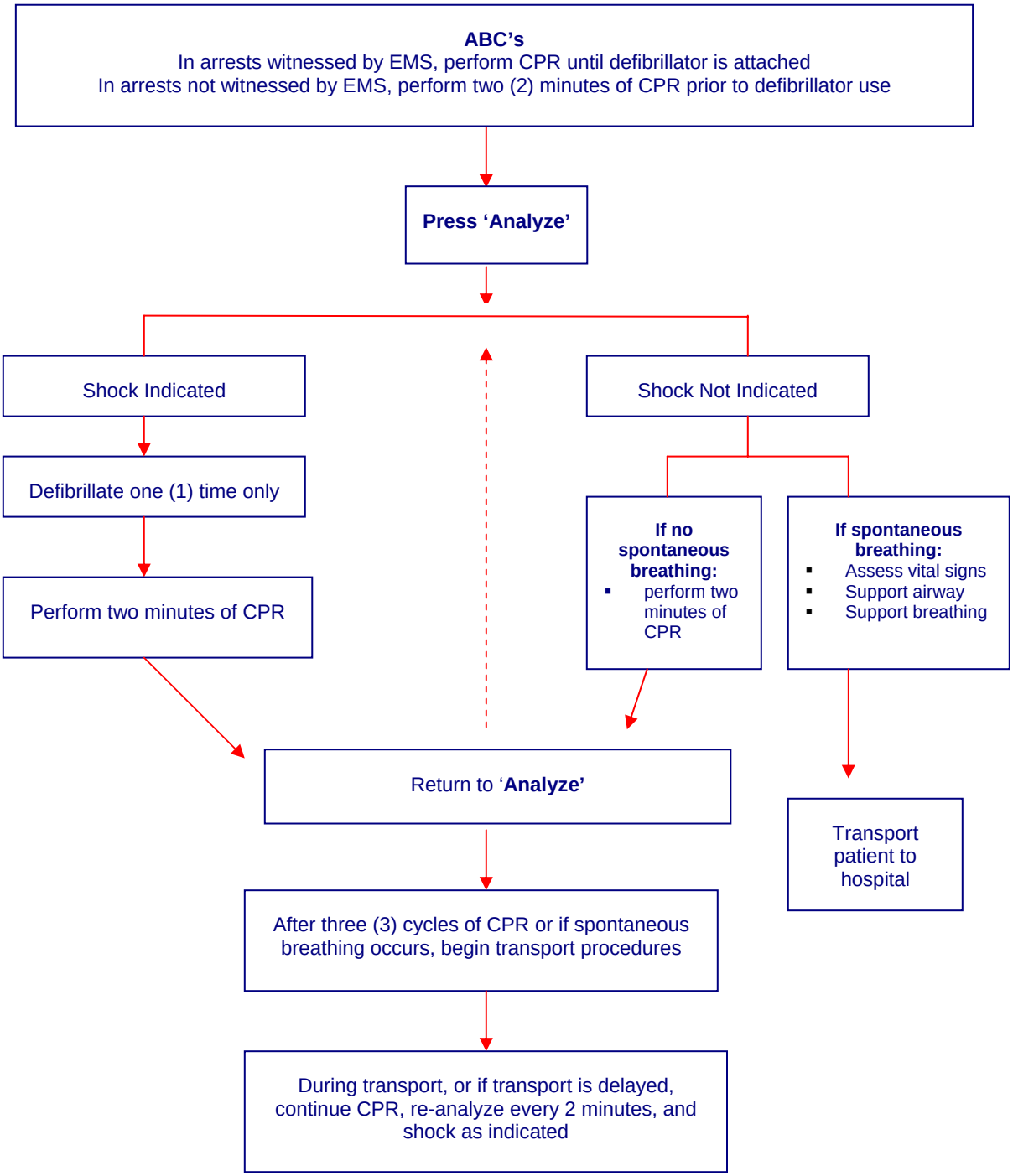
Edward G. Wronski, Director
Bureau of Emergency Medical Services

Anna D. Colello, Director
Division of Quality Assurance and Surveillance
for Nursing Homes a IC F/MRs

cc: Nursing Home Administrators
Tim Perry-Coon (0MM)
Chris Cameron (NYSHFA)
Robert McConnel (Ol-ISM)
Mark Henry, MD (SEMAC)

APPENDIX D

AUTOMATED EXTERNAL DEFIBRILLATION (AED) GUIDELINES



APPENDIX E
GLASGOW COMA SCALES/TRAUMA SCORES

ADULT GLASGOW COMA SCALE

RESPONSE		POINTS
Eye Opening	Spontaneous	4
	To Voice	3
	To Pain	2
	None	1
Verbal Response	Oriented	5
	Confused	4
	Inappropriate words	3
	Incomprehensible words	2
	None	1
Motor Response	Obeys commands	6
	Localizes pain	5
	Withdraws to pain	4
	Flexion	3
	Extension	2
	None	1
Total Glasgow Coma Scale		**3 – 15 Points**

ADULT TRAUMA SCORE

RESPONSE		POINTS
Respiratory Rate	10-29/min	4
	> 29/min	3
	6-9/min	2
	1-5/min	1
	None	0
Systolic BP	> 89 mmHg	4
	76-89 mmHg	3
	50-75 mmHg	2
	1-49 mmHg	1
	None	0
Glasgow Coma Scale Points	13-15	4
	9-12	3
	6-8	2
	4-5	1
	3	0
Total Trauma Score		**0 – 12 Points**

APPENDIX E (continued)
GLASGOW COMA SCALES/TRAUMA SCORES

INFANT GLASGOW COMA SCALE

RESPONSE		POINTS
Eye Opening	Spontaneous	4
	To Voice	3
	To Pain	2
	None	1
Verbal Response	Coos, Babbles	5
	Irritable Cries	4
	Cries To Pain	3
	Moans To Pain	2
	None	1
Motor Response	Normal Spontaneous Movement	6
	Withdraws To Touch	5
	Withdraws to pain	4
	Abnormal Flexion	3
	Abnormal Extension	2
	None	1
Total Glasgow Coma Scale		**3 – 15 Points**

PEDIATRIC TRAUMA SCORE

RESPONSE		POINTS
Size	> 20 Kg	+2
	10-20 Kg (22-44 lbs)	+1
	< 10 Kg (22 lbs)	-1
Airway	Normal	+2
	Maintainable	+1
	Unmaintainable	-1
Systolic BP	> 90 mmHg	+2
	50-90 mmHg	+1
	<50 mmHg	-1
CNS	Awake	+2
	Obtunded / LOC	+1
	Coma / Cerebrate	-1
Open Wounds	None	+2
	Minor	+1
	Major / Penetrating	-1
Skeletal	None	+2
	Closed Fractures	+1
	Open / Multiple fractures	-1
Total Trauma Score		**-6 – +12 Points**

APPENDIX F

TRAUMA PATIENT CRITERIA

Adult Major Trauma **(Including Traumatic Cardiac Arrest)**

Major trauma present if the patient's physical findings or the mechanism of injury meets **any one** of the following criteria:

PHYSICAL FINDINGS

1. Glasgow Coma Scale is less than or equal to 13
2. Respiratory rate is less than 10 or more than 29 breaths per minute
3. Pulse rate is less than 50 or more than 120 beats per minute
4. Systolic blood pressure is less than 90 mmHg
5. Penetrating injuries to head, neck, torso or proximal extremities
6. Two or more suspected proximal long bone fractures
7. Suspected flail chest
8. Suspected spinal cord injury or limb paralysis
9. Amputation (except digits)
10. Suspected pelvic fracture
11. Open or depressed skull fracture

MECHANISM OF INJURY

1. Ejection or partial ejection from an automobile
2. Death in the same passenger compartment
3. Extrication time in excess of 20 minutes
4. Vehicle collision resulting in 12 inches of intrusion in to the passenger compartment
5. Motorcycle crash >20 MPH or with separation of rider from motorcycle
6. Falls from greater than 20 feet
7. Vehicle rollover (90 degree vehicle rotation or more) with unrestrained passenger
8. Vehicle vs. pedestrian or bicycle collision above 5 MPH

HIGH RISK PATIENTS – **DOES NOT REQUIRE TRANSPORT TO A TRAUMA CENTER**

If a patient does not meet the above criteria for Major Trauma, but has sustained an injury and has one or more of the following criteria, they are considered a "High Risk Patient".
CONSIDER transportation to a Trauma Center.
CONSIDER contacting medical control.

1. Bleeding disorders or patients who are on anticoagulant medications
2. Cardiac disease and/or respiratory disease
3. Insulin dependent diabetes, cirrhosis, or morbid obesity
4. Immuno-suppressed patients (HIV disease, transplant patients, and patients on chemotherapy treatment)
5. Age >55

APPENDIX G
BURN PATIENT CRITERIA

For adults and pediatric patients with 2nd and 3rd degree cutaneous burns:

1. Burns involving 15% or more of the total body surface area.
2. Third degree burns involving 5% or more of the total body surface area.
3. Burns involving 9% or more of the total body surface area in persons:
   - Under 5 or over 60 years of age

   OR

   - With a pre-existing disease which may complicate or retard recovery
4. Respiratory burns.
5. Electrical burns.
6. Burns involving the eyes, ears, face, hands, feet, or genitalia.
7. Burns with associated trauma.

NOTE: **MAJOR BURN PATIENTS SHOULD BE TRANSPORTED TO A BURN CENTER. (SEE APPENDIX H.)**

PATIENTS IN CARDIAC ARREST OR WITH OBSTRUCTED OR UNMANAGEABLE AIRWAYS SHOULD BE TRANSPORTED TO THE NEAREST 911 AMBULANCE DESTINATION EMERGENCY DEPARTMENT. (SEE APPENDIX I.)

APPENDIX H
SPECIALTY REFERRAL CENTERS

TRAUMA CENTERS	Brooklyn	Brookdale Hospital
		Kings County Hospital
		Lutheran Medical Center
	Bronx	Jacobi Hospital
		Lincoln Medical Center
		St. Barnabas Hospital
	Manhattan	Bellevue Medical Center
		Harlem Hospital
		New York Presbyterian Hospital (Cornell Campus)
		New York Presbyterian Hospital (Columbia Campus) – **Pediatric Trauma Only**
		St. Luke's/Roosevelt Medical Center (St. Luke's Division) – **Adult Trauma Only**
		St. Vincent's CMC (St. Vincent's Campus)
	Queens	Elmhurst General Hospital
		Jamaica Hospital
		North Shore University Hospital (Long Island Jewish-Hillside Campus/Schnieder Children's Hospital) – **Pediatric Trauma Only**
		Mary Immaculate Medical Center
		New York Medical Center of Queens
	Staten Island	St. Vincent's CMC (St. Vincent's Campus)
		Staten Island University Hospital (North Division)

BURN CENTERS	Bronx	Jacobi Hospital
	Manhattan	Harlem Hospital
		New York Presbyterian Hospital (Cornell Campus)
	Staten Island	Staten Island University Hospital (North Division)

SPINAL CORD INJURY CENTER	Manhattan	Bellevue Hospital Center

REPLANTATION CENTERS	Bronx	Montefiore Medical Center
	Manhattan	Bellevue Hospital Center

HYPERBARIC CENTER	Bronx	Jacobi Hospital

VENOMOUS BITE CENTER	Bronx	Jacobi Hospital

APPENDIX I
HOSPITAL LISTINGS
(AMBULANCE DESTINATIONS)

Brooklyn	
Beth Israel Medical Center (Kings Highway Division)	Lutheran Medical Center
Brookdale University Hospital Medical Center	Maimonides Medical Center
Brooklyn Hospital Center (Downtown Campus)	New York Community Hospital
Brooklyn Hospital Center (Caledonian Campus)	New York Methodist Hospital
Brooklyn VA Medical Center	St. Vincent's CMC (St. Mary's Campus)
Coney Island Hospital	University Hospital of Brooklyn
Interfaith Medical Center (St. John's Division)	Victory Memorial Hospital
Kingsbrook Jewish Medical Center	Woodhull Medical Center
Kings County Hospital	Wyckoff Heights Hospital
Long Island College Hospital	
Bronx	
Albert Einstein Hospital	North Central Bronx Hospital
Bronx Lebanon Hospital(Concourse Division)	Our Lady Of Mercy (Florence D'Urso Pavilion)
Bronx Lebanon Hospital Center (Fulton Division)*	Our Lady Of Mercy Medical Ctr (Concourse Division)
Bronx VA Medical Center	St. Barnabas Hospital
Jacobi Medical Center	St. John's Riverside Hospital (Yonkers)*
Lawrence Hospital	St. Joseph Medical Center (Yonkers)
Lincoln Medical Center	Sound Shore Medical Center
Montefiore Medical Center	Westchester Medical Center*
Mt. Vernon Hospital	Westchester Square Medical Center
Manhattan	
Bellevue Hospital Center	New York Eye & Ear Infirmary*
Beth Israel Hospital North	New York Presbyterian Hospital (Allen Pavilion)
Beth Israel Medical Center	New York Presbyterian Hospital (Columbia Campus)
Cabrini Medical Center	New York Presbyterian Hospital (Cornell Campus)
Harlem Hospital Center	New York University Downtown Hospital
Lenox Hill Hospital	New York University Medical Center (Tisch Hospital)
Manhattan Eye/Ear/Throat Hospital*	North General Hospital
Manhattan VA Medical Center	St. Clare's Hospital
Memorial Sloan Kettering Hospital *	St. Luke's/Roosevelt Hospital Ctr (St. Luke's Division)
Metropolitan Hospital Center	St. Luke's/Roosevelt Hospital Ctr (Roosevelt Division)
Mount Sinai NYU Medical Center	St. Vincent's CMC (St. Vincent's Campus)
Staten Island	
Staten Island University Hospital (North Division)	St. Vincent's CMC (St. Vincent's Campus)
Staten Island University Hospital (South Division)	
Queens	
St. Vincent's CMC (Mary Immaculate Campus)	Parkway Hospital
Elmhurst Hospital Center	Peninsula Hospital Center
Flushing Hospital & Medical Center	Queens Hospital Center
Franklin Hospital Medical Center	St. Francis Hospital*
Jamaica Hospital	Western Queens Community Hospital
North Shore University Hospital (Long Island Jewish-Hillside Campus)	St. Vincent's CMC (St. John's Queens Campus)
New York Medical Center of Queens	St. John's Episcopal Hospital/ South Shore Division
Nassau County Medical Center*	Saint Joseph's Hospital
North Shore University Hospital at Forest Hills	Mt. Sinai Hospital of Queens
North Shore University Hospital	Winthrop University Hospital*

APPENDIX J *

PEDIATRIC VITAL SIGNS

Age	Weight 50th Percentile (kg)	Pulse Range			Respiratory Rate Range	Hypotensive Systolic Blood Pressure
		Awake	Mean	Sleeping	Resting	
0 – 2 month	3.5	85 – 205	140	80 – 160	30 – 50	60
3 month	5.5	100 – 190	130	75 – 160	30 – 50	60
6 month	7	100 – 190	130	75 – 160	24 – 40	60
1 year	10	100 – 190	130	75 – 160	20 – 30	70
2 years	12	60 – 140	80	60 – 90	20 – 30	74
3 years	14	60 – 140	80	60 – 90	20 – 30	76
4 years	16	60 – 140	80	60 – 90	20 – 25	78
5 years	18	60 – 140	80	60 – 90	20 – 25	80
6 years	20	60 – 140	80	60 – 90	16 – 20	82
7 years	22	60 – 140	80	60 – 90	16 – 20	84
8 years	25	60 – 140	80	60 – 90	16 – 20	86
9 years	28	60 – 140	80	60 – 90	16 – 20	88
10 years	30	60 – 140	80	60 – 90	16 – 20	90
11 years	35	60 – 100	75	50 – 90	16 – 20	90
12 years	40	60 – 100	75	50 – 90	12 – 16	90
13 years	45	60 – 100	75	50 – 90	12 – 16	90

* The following references were used in the development of Appendix J (Pediatric Vital Signs / Equipment /Medications):

- Gunn VL, Nechyba C, Editors *Harriet Lane Hand Book, 16th Edition.* Mosby , Philadelphia, 2002
- Hazinski MF, Editor *PALS Provider Manual*. American Heart Association, 2002
- National Center for Health Statistics, Health Resources Administration, Department of Health, Education and Welfare as published in Behrman RE, Editor, *Nelson Textbook of Pediatrics, 16th ed.* W.B. Saunders, Philadelphia, 2000
- Strange GR, Editor. *APLS The Pediatric Advanced Life Support Course, 3rd Ed.* American College of Emergency Physicians, 1998

APPENDIX J (continued)

PEDIATRIC INTUBATION EQUIPMENT SELECTION

Age	Weight 50th Percentile (kg)	Laryngoscope Blade	Endotracheal Tube		Distance from Mid trachea to Lips/Gums (cm)	Suction Catheter/ NG Tube Size (F)
0-2 month	3.5	Miller 0 – 1	3 – 3.5	uncuffed	9 – 10	6 – 8
3 month	5.5	Miller 0 – 1	3.5	uncuffed	10	8
6 month	7	Miller 0 – 1	3.5 – 4	uncuffed	10.5 – 12	8
1 year	10	Miller 1	4 – 4.5	uncuffed	12 – 13.5	8
2 years	12	Miller / Macintosh 2	4.5	uncuffed	13.5	8
3 years	14	Miller / Macintosh 2	4.5 – 5	uncuffed	14	8 – 10
4 years	16	Miller / Macintosh 2	5 – 5.5	uncuffed	15	10
5 years	18	Miller / Macintosh 2	5.5	uncuffed	16	10
6 years	20	Miller / Macintosh 2	5.5	uncuffed	16.5	10
7 years	22	Miller / Macintosh 2	5.5 – 6	uncuffed	17	10 – 12
8 years	25	Miller / Macintosh 2	6	cuffed	18	10 – 12
9 years	28	Miller / Macintosh 2	6 – 6.5	cuffed	19	10 – 12
10 years	30	Miller / Macintosh 2	6.5	cuffed	19.5	12
11 years	35	Miller / Macintosh 2	6.5 – 7	cuffed	20	12
12 years	40	Macintosh 3	7	cuffed	21	12
13 years	45	Macintosh 3	7 – 7.5	cuffed	21	12

- The color-coded sidebar on Broselow Tape may be used in lieu of Appendix J
- Laryngoscope Blades: Miller (straight) or McIntosh (curved)
- Endotracheal Tube selection should be based on the child's age and size. One size larger and one size smaller should be allowed for individual variations.

APPENDIX J (continued)

PEDIATRIC EMERGENCY MEDICATIONS

Age	Weight 50th Percentile (kg)	Adenosine 1ST Dose 0.1 mg/kg Max 6 mg	Adenosine 2nd Dose 0.2 mg/kg Max 12 mg	Amiodarone 5 mg/kg Max 15 mg/kg/day	Atropine 1st Dose 0.02 mg/kg Max **Child** 0.5 mg	*Atropine 2nd Dose* 0.04 mg/kg Max **Child** 0.5 mg*
0-2 month	3.5	0.4 mg	0.7 mg	17.5 mg	0.1 mg	*0.2 mg*
3 month	5.5	0.6 mg	1 mg	27.5 mg	0.1 mg	*0.2 mg*
6 month	7	0.7 mg	1.4 mg	35 mg	0.15 mg	*0.3 mg*
1 year	10	1 mg	2 mg	50 mg	0.2 mg	*0.4 mg*
2 years	12	1.2 mg	2.4 mg	60 mg	0.25 mg	*0.5 mg*
3 years	14	1.4 mg	2.8 mg	70 mg	0.3 mg	*0.5 mg*
4 years	16	1.6 mg	3.2 mg	80 mg	0.3 mg	*0.5 mg*
5 years	18	1.8 mg	3.6 mg	90 mg	0.4 mg	*0.5 mg*
6 years	20	2 mg	4 mg	100 mg	0.4 mg	*0.5 mg*
7 years	22	2.2 mg	4.4 mg	110 mg	0.45 mg	*0.5 mg*
8 years	25	2.5 mg	5 mg	125 mg	0.5 mg	*0.5 mg*
9 years	28	2.8 mg	5.6 mg	140 mg	0.5 mg	*0.5 mg*
10 years	30	3 mg	6 mg	150 mg	0.5 mg	*0.5 mg*
11 years	35	3.5 mg	7 mg	175 mg	0.5 mg	*0.5 mg*
12 years	40	4 mg	8 mg	200 mg	0.5 mg	*0.5 mg*
13 years	45	4.5 mg	9 mg	225 mg	0.5 mg	*0.5 mg*

* Discretionary decision

APPENDIX J (continued)

PEDIATRIC EMERGENCY MEDICATIONS

Age	Weight 50th Percentile (kg)	Dextrose D 25% 0.5 g/kg Max 2 – 4 mL/kg	Diazepam 0.1 mg/kg Max 10 mg	Epinephrine 1:1,000 0.1 mg/kg **ETT** & IV/IO **High Dose**	Epinephrine 1:10,000 0.01 mg/kg **IV/IO Standard Dose**
0-2 month	3.5	**Neonates** (0 – 1 Month / 3 kg weight) **Use D 10% - 1.5 g** 1 – 2 Months: 1.75 g	0.4 mg	0.4 mg	0.04 mg
3 month	5.5	2.75 g	0.6 mg	0.6 mg	0.06 mg
6 month	7	3.5 g	0.7 mg	0.7 mg	0.07 mg
1 year	10	5 g	1 mg	1 mg	0.1 mg
2 years	12	6 g	1.2 mg	1.2 mg	0.1 mg
3 years	14	7 g	1.5 mg	1.4 mg	0.1 mg
4 years	16	8 g	1.5 mg	1.6 mg	0.2 mg
5 years	18	9 g	2 mg	1.8 mg	0.2 mg
6 years	20	10 g	2 mg	2 mg	0.2 mg
7 years	22	11 g	2 mg	2.2 mg	0.2 mg
8 years	25	12.5 g	2.5 mg	2.5 mg	0.3 mg
9 years	28	14 g	3 mg	2.8 mg	0.3 mg
10 years	30	15 g	3 mg	3 mg*	0.3 mg
11 years	35	17.5 g	3.5 mg	3.5 mg	0.4 mg
12 years	40	20 g	4 mg	4 mg	0.4 mg
13 years	45	22.5 g	4.5 mg	4.5 mg	0.5 mg

APPENDIX J (continued)

PEDIATRIC EMERGENCY MEDICATIONS

Age	Weight 50th Percentile (kg)	Glucagon Max 1 mg	Lidocaine 1 mg/kg Max 5 mg/kg	Lorazepam 0.05 mg/kg Max 4 mg	Metaproterenol or Albuterol
0-2 month	3.5	1 mg	3.5 mg	0.2 mg	FULL VOLUME
3 month	5.5	1 mg	5.5 mg	0.3 mg	
6 month	7	1 mg	7 mg	0.35 mg	
1 year	10	1 mg	10 mg	0.5 mg	
2 years	12	1 mg	12 mg	0.6 mg	
3 years	14	1 mg	14 mg	0.7 mg	
4 years	16	1 mg	16 mg	0.8 mg	
5 years	18	1 mg	18 mg	0.9 mg	
6 years	20	1 mg	20 mg	1 mg	
7 years	22	1 mg	22 mg	1.1 mg	
8 years	25	1 mg	25 mg	1.2 mg	
9 years	28	1 mg	28 mg	1.4 mg	
10 years	30	1 mg	30 mg	1.5 mg	
11 years	35	1 mg	35 mg	1.8 mg	
12 years	40	1 mg	40 mg	2 mg	
13 years	45	1 mg	45 mg	2.3 mg	

APPENDIX J (continued)

PEDIATRIC EMERGENCY MEDICATIONS

Age	Weight 50th Percentile (kg)	Naloxone Age 0-5 yrs (20 kg): 0.1 mg/kg Age > 5 or 20 kg: 2 mg	Normal Saline Or Ringers Lactate Bolus 20 mL/kg	Sodium Bicarbonate 8.4% 1 mEq/kg
0-2 month	3.5	0.4 mg	70 mL	**Neonates** (0 – 1 Month / 3 kg weight) **Use 4.2% – 3 mEq**
				1 – 2 months – 3.5 mEq
3 month	5.5	0.6 mg	110 mL	5.5 mEq
6 month	7	0.7 mg	140 mL	7 mEq
1 year	10	1.0 mg	200 mL	10 mEq
2 years	12	1.2 mg	240 mL	12 mEq
3 years	14	1.4 mg	280 mL	14 mEq
4 years	16	1.6 mg	320 mL	16 mEq
5 years	18	1.8 mg	360 mL	18 mEq
6 years	20	2 mg	400 mL	20 mEq
7 years	22	2 mg	440 mL	22 mEq
8 years	25	2 mg	500 mL	25 mEq
9 years	28	2 mg	560 mL	28 mEq
10 years	30	2 mg	600 mL	30 mEq
11 years	35	2 mg	700 mL	35 mEq
12 years	40	2 mg	800 mL	40 mEq
13 years	45	2 mg	900 mL	45 mEq

APPENDIX J (continued)

PEDIATRIC EMERGENCY MEDICATIONS

Age	Weight 50th Percentile (kg)	Synchronised Cardioversion 1st dose – 0.5 J/Kg 2nd Dose - 1 J/Kg		Defibrillation 1st Dose – 2 J/Kg 2nd Dose – 4 J/Kg	
		Defibrillators settings: 1-10, 20, 30, 50, 70, 100, 150, 200 J		Defibrillator settings: 1-10, 20, 30, 50, 70, 100, 150, 200 J	
		1st Dose	2nd Dose	1st Dose	2nd Dose
0-2 month	3.5	2 J	4 J	7 J	10 J
3 month	5.5	3 J	6 J	10 J	20 J
6 month	7	4 J	7 J	10 J	30 J
1 year	10	5 J	10 J	20 J	50 J
2 years	12	6 J	10 J	20 J	50 J
3 years	14	7 J	10 J	30 J	50 J
4 years	16	8 J	20 J	30 J	70 J
5 years	18	9 J	20 J	30 J	70 J
6 years	20	10 J	20 J	50 J	100 J
7 years	22	10 J	20 J	50 J	100 J
8 years	25	10 J	30 J	50 J	100 J
9 years	28	10 J	30 J	50 J	100 J
10 years	30	20 J	30 J	70 J	100 J
11 years	35	20 J	30 J	70 J	150 J
12 years	40	20 J	50 J	70 J	150 J
13 years	45	20 J	50 J	100 J	200 J

APPENDIX K
APGAR SCORING SYSTEM

The patient is scored 0 - 2 points for each clinical sign. Maximum total score is 10. The score is determined at 1 and 5 minutes of life. The higher the score, the better.

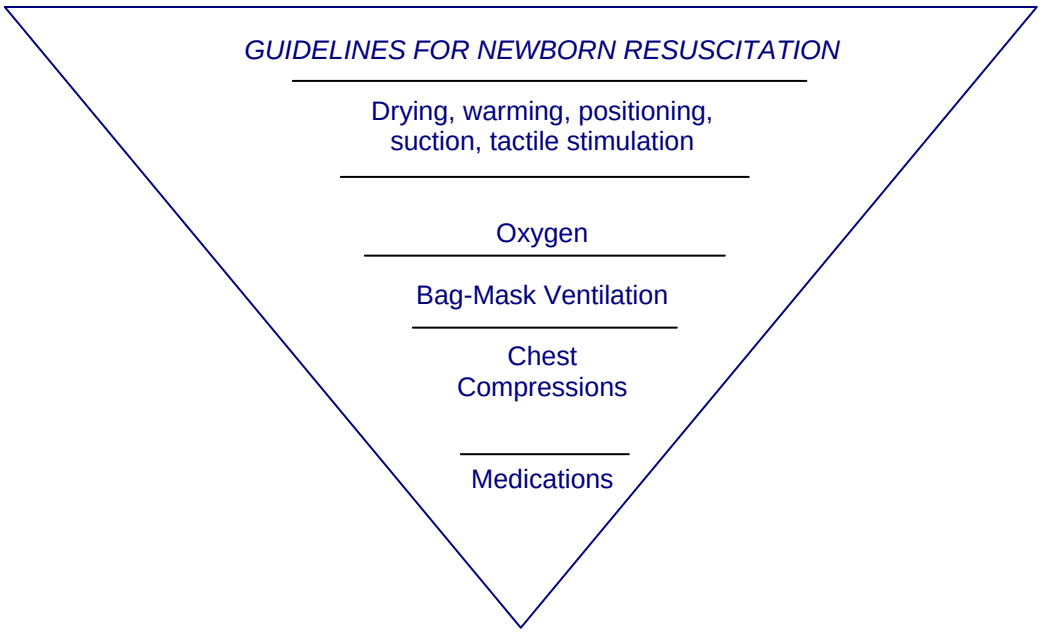
SIGN	0	1	2
Heart Rate	Absent	Below 100	Over 100
Respiration (effort)	Absent	Slow and irregular	Normal; crying
Muscle Tone	Limp	Some flexion - extremities	Active; good motion in extremities
Irritability	No Response	Crying: some motion	Crying; vigorous
Skin Color	Bluish or pale	Pink or typical newborn color; hands and feet are blue	Pink or typical newborn color; entire body

A score of:

8 - 10 is generally normal
5 - 7 indicates a need for supplemental oxygen
3 - 4 indicates a need for Bag-Valve-Mask ventilation
0 - 2 generally indicates a need for CPR

NOTE: **A SCORE OF 7 OR LESS REQUIRES IMMEDIATE INTERVENTION. (SEE PROTOCOL # 443).**

THE MANAGEMENT OF RESPIRATORY DISTRESS OR CARDIOVASCULAR INSTABILITY TAKES PRIORITY OVER OBTAINING APGAR SCORE.



APPENDIX L
TRIAGE / S. T. A. R. T.

The **S.T.A.R.T**. plan (**S**imple **T**riage **A**nd **R**apid **T**reatment) was developed by the Los Angles County Fire Chiefs to be used in the event of a Multiple Casualty Incident (MCI).

This plan allows EMTs and Paramedics to triage patients at an MCI in 60 seconds or less.

It is based on three (3) observations:

1. Respirations;
2. Circulation; and,
3. Mental Status.

Most trauma patients die within the first hour (Golden Hour) after sustaining their injuries, mostly due to respiratory complications/ insufficiency, exsanguination, or CNS trauma.

Review of MCIs and Triage

An MCI is any sudden event or situation that has produced, is believed to have produced, or experience indicates, may produce a minimum of five (5) patients.

Triage is a French word meaning to sort. It's purpose is to identify patients with life threatening injuries and give them immediate treatment and transportation.

Aim of Triage: GREATEST GOOD FOR THE GREATEST NUMBER

Principles of S.T.A.R.T.

The **S.T.A.R.T.** plan calls for rescuers to correct immediate threats to life:
blocked airways; and
severe arterial bleeding.

The **S.T.A.R.T.** plan utilizes the METTAGE Triage Card, which classifies patients into four (4) distinct areas for treatment.

It is a system that quickly and accurately triages victims into treatment groups.

The plan is simple to learn and retain. It is extremely useful in the MCI setting in that it maximizes the efficiency of the rescuers until additional resources arrive.

Prior to the **S.T.A.R.T.** plan, triage was solely based on individual judgment. If the injury appeared serious, the patient was placed in a critical treatment area. **S.T.A.R.T.** provides specific criteria for triage of patients.

How S.T.A.R.T. Works

The Triage Team must evaluate and place the patient's injuries into one of four categories:

DECEASED (BLACK TAG): No spontaneous effective respirations present after one attempt to reposition the airway.

IMMEDIATE (RED TAG): Respirations present only after repositioning of the airway.

Applies to patients with respiratory rates greater than 30 per minute.

Patients whose capillary refill is delayed more than 2 seconds.

The patient fails to follow simple commands.

DELAYED (YELLOW TAG): Any patient who does not fit into the IMMEDIATE category or the MINOR category.

MINOR (GREEN TAG): Patients who are separated from the general group at the beginning of the triage operation. These patients are also called the "walking wounded".

These patients are directed to walk away from the scene to a designated safe area.

These patients can also be utilized to control severe bleeding and assist in maintenance of patent airways on those "IMMEDIATE" patients who require it.

APPENDIX L (continued)

TRIAGE / S. T. A. R. T.

PROCEDURE

Respiratory Assessment

1. Every patient will be quickly assessed for respiratory rate and adequacy.
2. If a patient is not breathing, check for foreign objects causing obstruction in the mouth. Remove dentures if they are loose.
3. Reposition the head, using cervical spine precautions if this does not delay assessment.
4. If the above maneuvers do not result in effective spontaneous respirations, **TAG THE PATIENT BLACK.**
5. If the patient's respiratory rate is greater than 30 per minute, **TAG THE PATIENT RED.**
6. Patients who have respirations less than 30 per minute are **NOT TO BE TAGGED AT THIS TIME. THEY ARE TO BE ASSESSED IN THE NEXT CATEGORY.**

Perfusion

1. The best indicator of adequate perfusion is an assessment of capillary nail-bed refill.
2. Press nailbeds or lips and release. Color should return to these areas within 2 seconds.
   a. If it takes more than 2 seconds, the patient is showing signs of inadequate perfusion **AND MUST BE TAGGED RED.**
   b. If the color returns within 2 seconds or less, **THE PATIENT IS NOT TAGGED UNTIL THE NEXT AREA IS ASSESSED** - Mental Status.
3. If the capillary refill cannot be assessed, palpate the radial pulse. In most cases, if the radial pulse cannot be felt, the systolic blood pressure will be below 80 mm Hg.
4. Hemorrhage control techniques will be incorporated into this section. Control significant bleeding by direct pressure and elevate the lower extremities.
5. Utilize the "walking wounded" to assist with hemorrhage control on themselves or other patients.

Mental Status

1. An evaluation of mental status is performed on patients whose respirations and perfusion are adequate. To test mental status, the rescuer should ask the patient to follow a simple command,
2. e.g., "open and close your eyes" or, "squeeze my hands."
3. If the patient **cannot** follow these commands, s/he is **TAGGED RED.**
4. If the patient **can** follow these commands, s/he is **TAGGED YELLOW.**
5. Only after all patients have been triaged can patients be treated. The above techniques should take no more than 60 seconds per patient.

APPENDIX L (continued)

TRIAGE / S. T. A. R. T.

Triage Tags

Triage tags are completed during transportation to the hospital or in the Staging Area, if there is time.

To fill out the triage tag properly, follow these instructions:

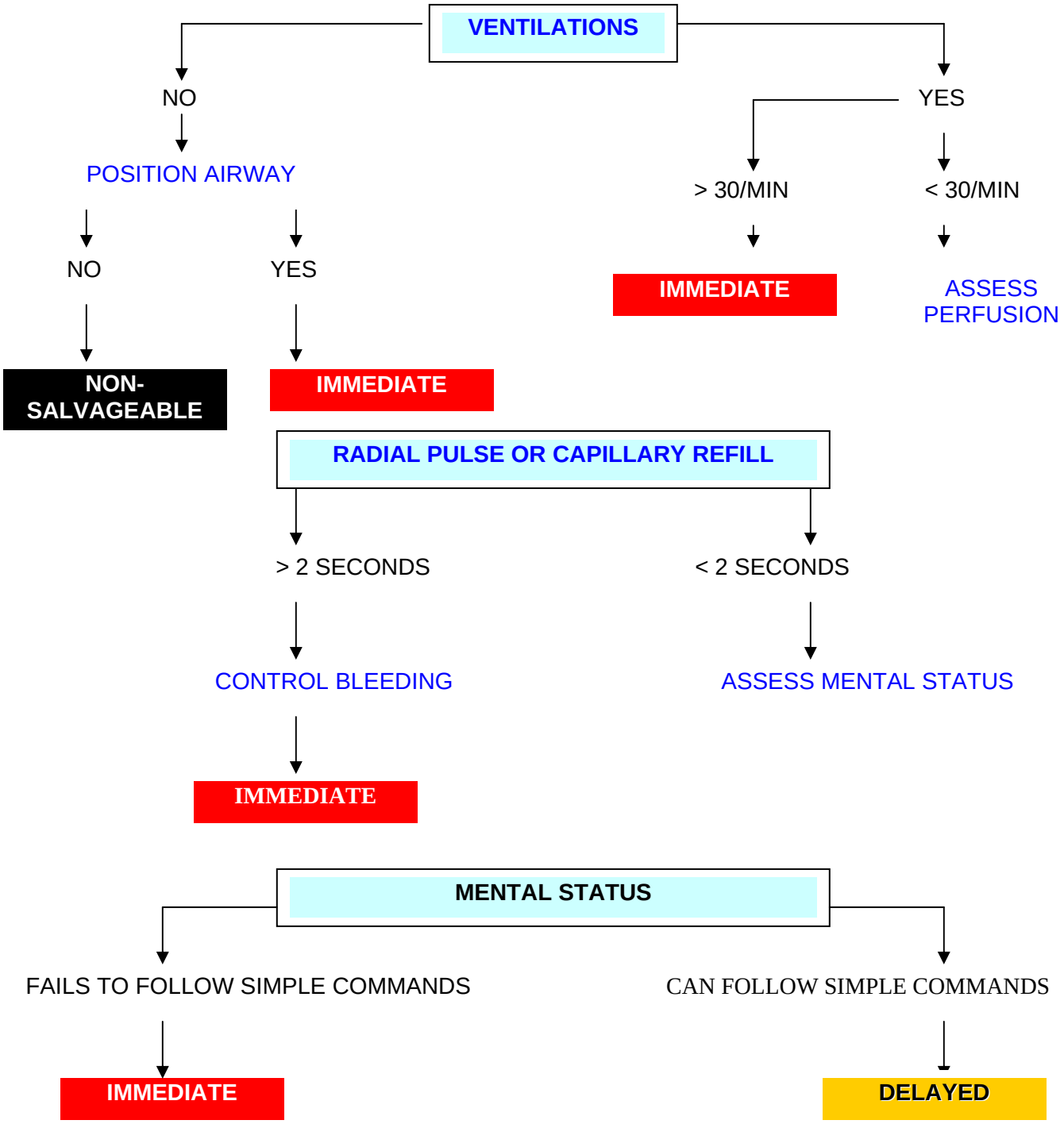
1. record time of triage
2. record the date
3. ***** record the name of the patient if s/he is conscious and coherent
4. ***** record the home address of the patient if possible
5. ***** record the home city and state of the patient if possible
6. record other important information, i.e. medical treatment, history
7. record your shield number or EMT number on the bottom line and on the yellow corners
8. on the reverse side, record injuries on the diagram
9. record vital signs and the time taken in the indicated areas
10. paramedics will record IVs and any drugs given
11. tear off all colored areas **BELOW** the determined priority and retain
12. attach tag securely to clothing or body so that it is clearly visible

Left and right corners (Ambulance & Cross) are perforated along the lines.

1. Make sure that your shield or EMT number appears on both corners.
2. The corner marked with the **CROSS** is removed in the treatment area prior to removal to a medical facility. These should be given to the person or Supervisor in charge of the Treatment Area.
3. The corner marked with the **AMBULANCE** is to be removed prior to the actual transfer of the patient from the Treatment Area to a medical facility. It is to be retained by the crew until the end of the MCI. These are then given to the person or Supervisor in charge of the Transportation Area.
4. All the initial triage portions of the tags must be retained by the Triage Team and given to the person, or Supervisor, in charge of the Triage Team at the end of the MCI.

*** Items 3, 4, and 5 may be delayed or accomplished by others while awaiting transportation.**

SIMPLE TRIAGE AND RAPID TREATMENT



All minor tagged patients (green tag or walking wounded) are to be removed from the scene first and sent to a safe area. These patients can also be used to help with bleeding control or airway problems on other patients.

APPENDIX M
AGENCY ADDRESSES

REGIONAL EMERGENCY MEDICAL SERVICES COUNCIL OF NEW YORK CITY 475 Riverside Drive, Suite 1929 New York, NY 11015	**REGIONAL EMERGENCY MEDICAL ADVISORY COMMITTEE (REMAC) OF NEW YORK CITY** 475 Riverside Drive, Suite 1929 New York, NY 11015
NEW YORK CITY FIRE DEPARTMENT BUREAU OF EMERGENCY MEDICAL SERVICES 9 MetroTech Center Brooklyn, NY 11201	**NEW YORK CITY POLICE DEPARTMENT** 1 Police Plaza New York, NY 10038
AMTRAK POLICE 400 North Capital Street Washington, DC 20002	**LONG ISLAND RAILROAD SERVICE** Jamaica Station Jamaica, NY 11435
METRO-NORTH COMMUTER POLICE Grand Central Station Room #1750 New York, NY 10017	**NEW YORK STATE POLICE** c/o Principal Clerk Troop L Headquarters 3045 Sunrise Highway Islip Terrace, NY 11752
NEW YORK STATE DEPARTMENT OF HEALTH Bureau of Emergency Medical Services 433 River Street, Suite 303 Troy, NY 12180-2299	**NEW YORK CITY FIELD OFFICE EMS** New York State Department of Health & Systems Management 90 Church Street, 15th Floor New York, NY 10007

APPENDIX N

LANDMARKS AND PROCEDURE FOR NEEDLE CRICOTHYROIDOTOMY

1. Confirm the need for Needle Cricothyroidotomy:
   a) **History suggestive of airway obstruction;**
   b) **Severe respiratory distress or respiratory arrest**
      i) absent or ineffective respiratory effort,
      ii) central cyanosis;
   c) **Absence of air entering**
      i) lack of air movement at nares,
      ii) absent breath sounds on both sides of chest; and
   d) **Failure of basic and advanced life support obstructed airway maneuvers to clear the obstruction.**
2. Properly identify the cricothyroid membrane using external landmarks. (The cricothyroid membrane lies just above the cricoid cartilage.)
3. Locate the cricothyroid membrane:
   a) By palpating the trachea just above the sternal notch and proceed upward until the prominence of the cricoid cartilage is identified.
   b) By palpating the thyroid notch and proceeding downward until the prominence of the cricoid cartilage is identified.
4. Palpate the junction of the trachea and the cricothyroid membrane which forms a "T", to insure proper identification of the cricothyroid membrane.
5. Stabilize the larynx with fingers of the non-dominant hand.
6. Cleanse the overlying skin with Povidone Iodine solution.
7. Introduce a 10-l4 gauge over-the-needle catheter attached to a 3 ml syringe through the skin just above the cricoid cartilage at a 45° downward angle.
8. Advance the needle into the cricothyroid membrane and into the airway.
9. When air is aspirated, **stop** advancing the needle, advance the catheter over the needle into the trachea, and remove the needle.
10. Attach the barrel only of the 3 ml syringe to the over-the-needle catheter. Attach a 7.5 mm Endotracheal Tube adapter to the 3 ml syringe barrel.
11. Deliver oxygen at l5 lpm with a Bag-Valve-Device, or via Intermittent Jet Insufflation device capable of delivering oxygen at 60 psi with a timed cycle of 3 seconds "on" followed by 5 seconds "off", and an exhaust port.
12. Auscultate lungs for air entry.
13. Look for chest expansion, and check for **egress** of air.
14. Rule out possibility of obstruction **below** the cricothyroid membrane.
15. After completion of the procedure, transport and notify the receiving hospital of the need for surgical airway management.
16. If airway remains obstructed, transport patient immediately, and continue the BLS Obstructed Airway procedures.

APPENDIX O
LANDMARKS AND PROCEDURE FOR DECOMPRESSION OF A TENSION PNEUMOTHORAX

1. Confirm the need for Needle Decompression:

   a) **Respiratory distress**

      i) dyspnea;

      ii) tachypnea;

      iii) cyanosis; and/or

      iv) chest pain;

   b) **Absent** or **decreased breath sounds** on the affected side; **and**

   c) A **deviated trachea** away from the side of the injury.

2. Administer high concentration oxygen.

3. Identify the second intercostal space on the mid-clavicular line on the same side as the Pneumothorax.

4. Cleanse the overlying skin with Povidone Iodine solution.

5. Insert a #l4 gauge, 3 - 6 cm long (adult) or a #18 - 20 gauge, 2 - 4 cm long (child or infant) over-the-needle catheter into the skin **above** the third rib and direct it just **over** the rib into the interspace.

6. Insert the catheter through the parietal pleura until air exits under pressure.

7. Remove the needle and leave the plastic cannula in place until it is replaced in the Emergency Department.

8. Attach a ***flutter valve*** to the end of the plastic cannula and secure the cannula for transportation.

APPENDIX P

USE OF THE CONTINUOUS POSITIVE AIRWAY PRESSURE (CPAP) DEVICE

Scope: In the event of acute congestive heart failure, Paramedics trained and authorized by the service medical director, may utilize Continuous Positive Airway Pressure (CPAP), if available and appropriate.

INCLUSION CRITERIA

1. Be at least 18 years of age
2. Be Alert
3. Be able to maintain an open and patent airway on their own
4. Have a blood pressure of at least 100 mm Hg systolic
5. Have significant respiratory distress, indicated by cyanosis, accessory muscle use or other signs and symptoms.

CONTRAINDICATIONS

1. Less than 18 years of age
2. Need for immediate endotracheal intubation or other methods of airway control
3. Altered Mental Status or unresponsive patients
4. Hemodynamically unstable patients
5. Patients who are unable to control their own airway
6. Trauma, facial burns, impending respiratory or cardiac arrest
7. **Known** Active unstable angina or acute myocardial infarction
8. Uncooperative patient
9. Pregnancy
10. **Known** Pneumonia, pneumothorax, anaphylaxis, pulmonary embolism, or aspiration.
11. Gastric Distention

CPAP IS TO BE IMMEDIATELY DISCONTINUED IF:

1. An immediate need for advanced airway control arises
2. The patient becomes hemodynamically unstable
3. The patient cannot tolerate the mask due to pain or discomfort

APPENDIX Q
ADMINISTRATION OF RECTAL VALIUM

INCLUSION CRITERIA

1. Diazepam may be administered via the rectum only if no other route of administration is available. (Refer to REMAC ALS Protocol 557 – Pediatric Status Epilepticus).
2. Administration of Rectal Diazepam is a medical control option.

PROCEDURE FOR RECTAL ADMINISTRATION OF DIAZEPAM

1. The dosage of Diazepam for rectal administration is .5 mg/kg.
2. The Diazepam is to be drawn up in a 1 cc (i.e., Tuberculin) syringe, and the needle then removed from the syringe.
3. When possible and practical, place the pediatric patient prone on the lap of a parent and have them assist you in spreading the patient's buttocks apart. This will allow the parent to see what is happening and help reduce patient agitation.
4. The syringe may be lubricated with an acceptable water-based medical lubrication prior to insertion in the patient's rectum.
5. The ALS provider should then carefully insert the tip of the syringe approximately 4 to 5 cm, or about half the total length of the 1 cc syringe into the patient's rectum.
6. The Diazepam is then administered into the rectum, and the syringe carefully removed.
7. If there is concern about expulsion following rectal administration, the paramedic may tape the patient's buttocks closed using one (1) piece of 2 inch tape.

POTENTIAL COMPLICATIONS

1. Exercise great care while inserting the syringe into the patient's rectum to avoid perforating rectal tissue and/or causing local tissue damage.
2. Do not push the syringe too deeply into the rectum since the blood supply deep in the rectum passes through the liver prior to entering into central circulation. Minimal penetration will reduce the chance of decreasing the effectiveness of the Diazepam due to metabolic actions by the liver. This will also allow the Diazepam to circulate longer in the central circulation, and be more effective in seizure suppression.
3. The presence of feces in the rectum may inhibit the absorption of the Diazepam. If the Diazepam does not take effect within ten (10) minutes and the arrival of the patient at the hospital is not imminent, consider re-contacting the Medical Control for further direction. However, it is not recommended that the dosage of Diazepam exceed 10 mg.
4. When administering Diazepam to neonates, note that metabolism of Diazepam may take longer and the expected therapeutic effects may last longer.

APPENDIX R

STROKE PATIENT CRITERIA

Patients exhibiting signs and symptoms of a stroke (CVA):

1. Utilize the modified Cincinnati Pre-Hospital Stroke Scale (PSS):
   a. Assess for facial droop: have the patient show teeth or smile,
   b. Assess for arm drift: have the patient close eyes and hold both arms straight out for 10 seconds,
   c. Assess for abnormal speech: have the patient say a simple sentence, for example: "you can't teach an old dog new tricks."

2. If any **one** of the findings of the modified Cincinnati Pre-Hospital Stroke Scale are positive, establish onset of signs and symptoms by asking the following :
   a. To patient – "When was the last time you remember before you became weak, paralyzed, or unable to speak clearly?"
   b. To family or bystander – "When was the last time you remember before the patient became weak, paralyzed, or unable to speak clearly?"
   c. If the patient woke with the deficit, the time of onset is the time patient went to sleep.

3. Transport the patient to the closest New York State Department of Health designated Stroke Center if the **total** time from when the patient's symptoms and/or signs first began to when the patient is first assessed by EMS is less than two (2) hours.