

Dear Suffolk EMS Community,

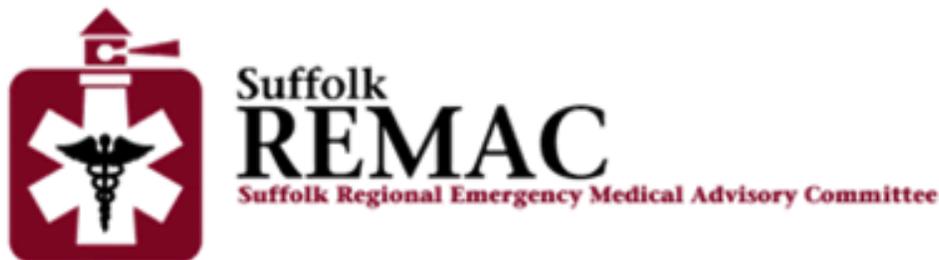
Attached is the White Paper entitled **“Report of the Strategic Working Group on the Suffolk County Emergency Medical Services System”**. This report is a culmination of months of work devoted to interviewing experts in EMS and synthesizing expert opinion into the recommendations contained within the paper. It was reviewed and approved by the Suffolk Regional EMS Council and Regional Medical Advisory Committee. The recommendations are designed to lay the foundation for promoting improvement in our system. Please review the report and provide suggestions on how we may achieve these vital objectives. We welcome the opportunity to collaborate with Suffolk EMS organizations to make these recommendations a reality! Please respond to: [suffolkemswp@aol.com](mailto:suffolkemswp@aol.com).

Sincerely,

Edward J. Boyd  
Chair, Suffolk REMSCO

Edward R. Stapleton  
Chair, Strategic Working Group

**Suffolk Regional Emergency Medical  
Services Council  
and  
Regional Medical Advisory Committee**



**Report of the Strategic Working Group  
on the  
Suffolk County  
Emergency Medical Services System**

**Suffolk Regional Emergency Medical Services Council and  
Regional Medical Advisory Committee**

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## Executive Summary

In late 2007 after a request from the FRES Commission, County Executive Steve Levy initiated a process to consider the relocation of the Suffolk County Division of Emergency Medical Services (SCEMS) from the Suffolk County Department of Health Services (SCDOH) to Fire, Rescue, and Emergency Service (FRES). As part of this initiative, the County Executive requested that the Suffolk Regional Emergency Medical Service Council (REMSCO) and the Regional Emergency Medical Advisory Committee (REMAC) comment on the merits of the proposed move and provide a recommendation to his office.

The members of the REMSCO Executive Committee and REMAC leadership met on February 4, 2008 to implement a process for evaluating this proposed action and formed a Strategic Working Group consisting of REMSCO and REMAC Officers. The purpose of this Working Group was to gather information and make specific recommendations to REMSCO, REMAC and the County Executive. The Working Group convened multiple times and interviewed leaders and experts from the Suffolk County, Regional and State EMS Systems (see Appendix A).

In August of 2009, the County withdrew its intention to proceed with any reconfiguration strategy due to the potential negative funding impact communicated by the New York State Department of Health (see Appendix B). However, by this point in time the REMSCO/REMAC review process had been completed. This report is the product of that process and includes specific recommendations for restructuring the Suffolk County Division of EMS and the Suffolk County EMS System.

The purpose of these recommendations is to promote a system in which medical decisions and design features are “patient-centric”. It is most important to remember that from the patient’s and their family’s perspective, **quality is paramount**.

This is a summary of recommendations that are outlined in this document. The Working Group strongly recommends that:

- **EMS should remain under the Suffolk County Health Department.**
- **The Suffolk County Executive hire a full-time, Board Certified Emergency Physician as Medical Director as soon as possible.**
- **A universal system of data collection and reporting be established that includes the following times; 911 call (or local number call), dispatch, scene arrival, time on scene, and arrival at hospital. PSAPs should be strongly encouraged to contribute their response data in a standardized form to a centralized database for the purposes of measuring and improving the response time in Suffolk County.**
- **Agencies should collaborate across borders, thereby creating a true EMS System in Suffolk County. We encourage political leadership, REMSCO and REMAC to work with agencies to facilitate this critical goal.**

## **Principles of Decision-Making**

It was anticipated that interviews with EMS leaders and experts would harvest invaluable data that could be helpful in overall decision-making by the County Executive, Division of EMS, REMSCO, REMAC, town and village leadership, and EMS services throughout the County. Therefore, the Working Group agreed not to limit its evaluation to the sole issue of where EMS should reside, but rather would consider the overall structure and process of EMS in Suffolk County.

Toward this goal, the Working Group established a number of guiding principles as its foundation for the evaluation process. We believe that the members of REMSCO and REMAC, political leadership, and the volunteer services throughout the County will ultimately support the EMS model that best adheres to these guiding principles.

These guiding principles are that the Suffolk County EMS System should:

1. First and foremost, serve the best interest of the patients in the Suffolk County EMS System to assure the highest quality medical care.
2. Establish leadership through a qualified and experienced Medical Director.
3. Ensure coordination among resources optimizing response times in a fiscally responsible manner without regard to jurisdictional boundaries.
4. Establish a means to provide coordinated Command, Control, Coordination, and Communication (4 Cs) during inter-departmental response.
5. Ensure continued respect and support for the volunteer providers.
6. Ensure that both the REMAC and the System Medical Director retain their responsibilities and authority for overall medical direction and medical decision-making.
7. Encourage collegial and productive relationships between the Division of EMS and the many leadership groups in Suffolk County including FRES, REMSCO, and REMAC.
8. Ensure that appropriate funding and resources are dedicated to the mission of EMS.
9. Establish a strong commitment to evidence-based medicine in the administration of the Suffolk County EMS System.
10. Encourage fair representation of the interests of EMS agencies based in both the Fire Departments and Volunteer Ambulance Corps.

Throughout its deliberations the Working Group focused on these principles in order to make recommendations that would thoughtfully provide direction for the future of the Suffolk County EMS System. The Working Group extends its sincere thanks to all those that participated in the development of this “White Paper”.

## The Suffolk County EMS System: Past and Present

The Suffolk County EMS System is a dynamic collaboration of fire department, volunteer ambulance, hospital-based, municipal, federal, and proprietary EMS services. As one of the largest volunteer ambulance systems in the world, the Suffolk County EMS System has frequently been progressive and at the cutting edge of EMS innovation during last two decades. This has included the use of first responders, Public Access Defibrillation (PAD), the use of Medevac aviation resources, and implementation of specialty referral centers related to trauma, stroke and other critical conditions.

Leadership agencies and organizations in Suffolk County include; the Suffolk County Division of EMS, the Regional EMS Council, the Regional Medical Advisory Committee, the Department of Fire, Rescue and Emergency Services, and numerous fire department and ambulance service organizations who have collectively advanced the quality and provision of EMS throughout the County.

SCEMS provides several levels of service to county residents. The levels of EMS service include: **Advanced Life Support** (providing invasive airway management, intravenous access and administration of medications); **Basic Life Support** (providing defibrillation, basic airway and ventilation management and assist with medications); **Basic Life Support First Response** (same as BLS without transport); and **Medevac Services** (providing Advanced Life Support with Air Transportation). Table 1 summarizes the various levels of emergency medical service in Suffolk County. There are also several proprietary ambulance services operating in Suffolk County that provide home transfer, contractual fee for service and inter-facility transportation services.

**Table 1**

### **Types of EMS Services in Suffolk County by Level of Service**

<b>Total Ambulance and First Response Services</b>	<b>101</b>
Advanced Life Support Ambulance Services	87
Basic Life Support Ambulance Services	8
Basic Life Support First Response Services	5
Medevac Service	1 (2 locations)

The Suffolk County EMS also includes examples of almost every national administrative model for providing EMS including fire department, ambulance, hospital-based, municipal, federal government, and proprietary EMS services. Table 2 illustrates the distribution of these administrative structures in Suffolk County.

**Table 2**

**Types of EMS Services in Suffolk County by Administrative Structure**

Fire Department	69
Volunteer Ambulance Corps	27
Municipal (SCPD, Islip Town)	2
Stony Brook University	1
Federal Government (BNL, Plum Island)	2
Proprietary EMS Services	6
Public Service Answering Points (PSAPs)	11

Types of EMS field providers are also diverse in our system and include EMT-Paramedic, EMT-Critical Care, and EMT-Basic. Given the dynamic nature of the system, it is difficult to state the exact number of providers at any point in time. Table 3 is a close approximation of the number of providers based upon Medical Control\* and State records.

*\*Medical Control is the process and structure through which providers communicate with a physician for direction beyond what is permitted through standing orders.*

**Table 3**

**Estimate of Types of EMS of Providers in Suffolk County**

Number of EMT-B	~5,000
Number of EMT-CC	463
Number of EMT-P	385
<b>Total Number of EMS Providers</b>	<b>~ 5848</b>

*~ Estimates based on Medical Control and State Department of Health Certification records.*

Medical Direction for the Suffolk County EMS System comes in four forms: a) the Suffolk County EMS System that currently has a part-time Acting Medical Director within the Department of Health Services. The System Medical Director has many roles including: primary medical oversight and medical quality improvement together with numerous medical and administrative responsibilities; b) the individual EMS Services that maintain medical directors who provide quality assurance/improvement, oversight of general health issues (immunizations, provider health and safety), and review of medical procedures. The level of involvement of the agency level medical directors, many who serve in a voluntary capacity, varies significantly from those who are very involved to those who have limited participation; c) the REMAC Physicians consisting of representatives from every hospital in Suffolk County; and d) the Medical Control Physicians who provide on-line consultation with EMS providers. Table 4 illustrates the scope of physician involvement with EMS Services.

**Table 4**

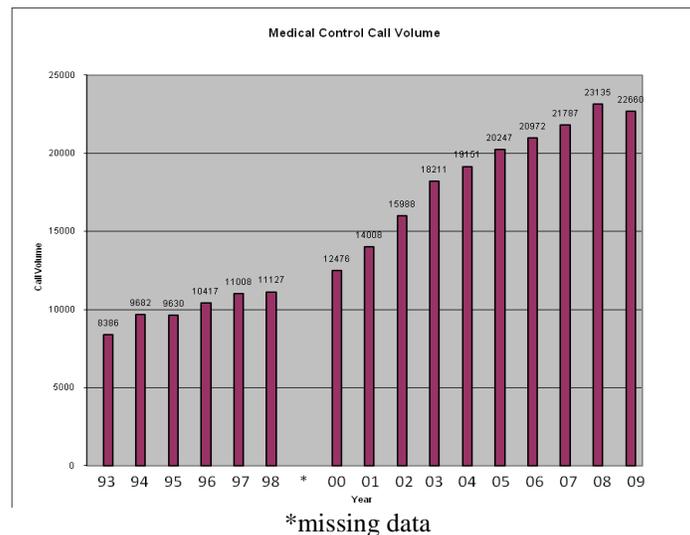
**Medical Oversight in Suffolk County**

Regional EMS Medical Director (Part Time)	1
Ambulance Service Physician Medical Directors	84
Medical Control Physicians	57

General education of EMS Providers in Suffolk County is provided by The Division of EMS, Suffolk County Community College, and Stony Brook University. These entities train both basic and advanced life support providers. Additionally, Suffolk County Police Department and Hunter Ambulance provide training for their respective constituents.

Suffolk County is a vibrant and busy EMS System. In 2008 there were 122,622 calls for help. The County system maintains an On-line Medical Control consultation 24/7/365 at Stony Brook University Medical Center. The volume of medical control intervention has seen an enormous increase over the last two decades. In 1993 their call volume was 8,386. By 2009, there was almost a three-fold increase to 22,660 (see Figure 1). These calls included 10,644 (46.97%) contacts where direct physician on-line medical control was provided, and 3,861 requests for review of refusals of medical attention. Of these refusal calls, 766 patients were convinced to seek medical attention at a hospital. The Medical Control Center at Stony Brook University Medical Center is also responsible for maintaining a database of clinical data for Suffolk County that is used by the Division of EMS to supervise remediation and to guide educational programs. These data are also used by the Suffolk County Medical Director and the Regional Medical Advisory Committee to guide protocol development and changes in overall medical strategies for the system.

**Figure 1**



## **Dynamic Growth of Suffolk EMS**

The growth and development in the Suffolk County Emergency Medical Service System (SCEMSS) has been quite impressive over the last decade. This growth has included many dimensions such as increased numbers of advanced interventions, the development of several new Advanced Life Support agencies, refined Medical Protocols, implementation of technology associated with patient safety, and a vast number of educational initiatives. All of these advancements have been implemented under the watchful eye of the System Medical Director and the Regional Emergency Physicians.

### **Examples of EMS Advancement**

#### **ETCO<sub>2</sub> Waveform Capnography**

Placement of endotracheal tubes in critically ill and injured patients can be one of the most lifesaving interventions in EMS.<sup>1-4</sup> Conversely, some studies have shown that intubation may have a negative effect on patient outcome.<sup>5</sup> When an endotracheal tube is mistakenly placed in the esophagus or pharynx it can have devastating results for the patient including irreversible brain injury or clinical death. In response to this serious concern, Suffolk County under the direction of the State Department of Health has implemented a widespread program of “Waveform Capnography Monitoring” to facilitate recognition of inappropriate placement or dislodgement of endotracheal tubes. Monitoring exhaled carbon dioxide has been proven to significantly reduce the chances of unrecognized endotracheal tube misplacement or displacement.<sup>6</sup>

#### **Continuous Positive Airway Pressure (CPAP)**

Respiratory failure due to congestive heart failure and acute pulmonary edema is one of the most serious conditions encountered by the EMS provider. Many of these patients suffer profound respiratory failure and must be intubated in the field and/or hospital to correct oxygen deficiency known as hypoxia. CPAP is an intervention that uses positive pressure to improve ventilation and oxygenation in these patients and has been proven to reduce serious complications.<sup>7</sup> The use of this intervention was recently expanded to include EMT-Critical Care Providers.

#### **12-lead ECG to Identify ST Elevation Myocardial Infarctions**

Heart disease is the leading cause of death in the United States. The use of 12 lead ECG in EMS has been proven to reduce time to definitive care (administration of Fibrinolytics, Angioplasty, and Coronary Artery Bypass, interventions to restore blood flow in clogged arteries) and mortality in patients suffering from ST Elevation Myocardial Infarction (heart attack).<sup>8-13</sup> The early recognition of ST elevation MI, makes a 12 lead ECG one of the most effective prehospital diagnostic tools. Suffolk has implemented a comprehensive 12 Lead ECG program that is expanding at a rapid pace. During 2009, a total of 3,692 ECGs with 12 Leads were acquired for various complaints as compared to 1,864 during the same period in 2007. In addition, newly implemented technology has

facilitated transferring real-time prehospital ECG information literally into the hands of the physician.

### **Expanded CME Program**

All of the interventions described above require high quality continuing education to assure quality implementation. The Division of EMS has responded to this need by expanding the continuing medical education program. In 2009, a total of 2,355 providers were trained in new concepts and procedures. Evidence of the effectiveness of this program is seen in the performance of Intraosseous Needle Insertion (IO). The technique of IO is used when traditional IV access is not possible. This technique uses blood vessels in the bone to distribute fluid and lifesaving medication. In 2008, only 69% of these insertions were successful. In 2009, 80% of the insertions were successful, a testament to excellent continuing education and refined technology. The most current numbers reflect an overall success rate approaching 90%, with close to 95% for The EZ-IO (one of the approved devices).

### **Specific Recommendations**

It was evident during the Working Group interviews that the experts recognized that the structure of the Division of Emergency Medical Services in Suffolk County and related medical and government oversight would provide the foundation for future development of the Suffolk EMS System. The following recommendations are based on the deliberations of the Working Group after considering the collective opinion of the experts. Obviously, there was some divergence of expert opinion on many issues. However, the collective data was used to make these specific recommendations.

### **The Placement of EMS in the Suffolk County EMS System**

At that the start of our deliberations the Working Group's primary objective was to comment on the organizational move of SCEMS from DOH to FRES. This objective was obviated once the State DOH had ruled regarding a potential loss of funding. However it is worthy to note that the Working Group concluded their deliberations in strong opposition to any such reorganization. The Working Group concluded that mission of EMS is first and foremost a medical mission. The care of a patient in an emergency medical system is care provided when that patient is most vulnerable. The patient is unknown to the care provider, the medical condition is undiagnosed and potentially unstable, and the environment is highly challenging to the provider. The delivery of consistently high quality care in such circumstances requires strong medical oversight. The Working Group believes that this medical oversight is best provided under the current organizational structure as the SC DOH Bureau of EMS has a proven record of accomplishment in this regard.

## **Medical Director: Foundation of the EMS System**

First and foremost, EMS is the delivery of emergency **medical** care in the prehospital setting. EMTs (EMT-B, EMT-CC and EMT-P) are the first medical professionals encountered by the critically ill or injured patient. For an EMS System to be effective, providers must respond quickly and provide state-of-the-art emergency medical care. The EMS Medical Director is the architect and gatekeeper of these goals. In August 2007, EMS Magazine recognized the “Founding Fathers of EMS”. This list included current and historical figures that made the greatest contribution to EMS in the last four decades. Not surprisingly, 12 out of 14 of the individuals recognized were doctors.<sup>14</sup> Doctors who are expert in Emergency Medicine have been responsible for the vast majority of innovations in EMS throughout the United States. Indeed, doctors are the founders and the innovators of modern EMS Systems.

Suffolk County has been without a full-time Medical Director for the last few years. It is the opinion of the Working Group that an EMS System that responds to over 122,000 calls per year requires the expertise and oversight of a physician who is expert in both Emergency Medicine and EMS. The County has attempted to fill this position but has been unsuccessful. This failure has resulted in the appointment of a part-time Medical Director for Suffolk County who holds several other responsibilities within the Department of Health. The Acting Medical Director has fulfilled these duties with professionalism and dedication. It is, however, the opinion of many of the experts and the Working Group that the scope-of-responsibilities are far too broad and much too complex to be handled by a part-time physician. Ironically, the Suffolk County Police Department maintains a full-time Medical Director while Emergency “Medical” Services does not.

We recognize that one of the challenges of the Suffolk County Government is to provide the competitive salary needed to attract a qualified individual for Medical Director. We believe that this issue can be handled by several different strategies including, but not limited to; establishing the System Medical Director as a Deputy Commissioner to justify a higher salary, collaborating with regional healthcare institutions to absorb a portion of the cost of this role, or an integrative approach that uses both strategies.

The system Medical Director should be the primary leader, visionary, and innovator of EMS in Suffolk County in the tradition of past Medical Directors who have been responsible for significant innovations such as Public Access Defibrillation, promoting the Medevac program and implementing many advanced life support interventions.

**The Working Group strongly encourages the Suffolk County Executive to hire a full-time, Board Certified Emergency Physician as Medical Director as soon as possible. Qualifications and experience should be consistent with guidelines established by the National Association of EMS Physicians (NAEMSP) and the American College of Emergency Physicians (ACEP) (see Appendix C).**

## **Data: The Life Blood of a Growing EMS System**

There was widespread agreement among the experts that data is needed to drive and evolve the Suffolk County EMS System. Data is the lifeblood of any system. With solid data, shortcomings can be identified and corrected. With data, success can be measured and celebrated. Without data the system becomes stagnant, loses objectivity, and maintains a false sense of progress. All of the experts who were interviewed cited the absence of response data as a shortcoming within the Suffolk County EMS System. As discussed previously, clinical data (primarily measuring ALS response) is collected by Medical Control at Stony Brook University Medical Center and reported to the County EMS Medical Director and Division of EMS. These data are used to provide clinical feedback to EMS Providers and remediation by the Division of EMS and include items such as: performed skills; cardiac arrest outcome; deviation from protocols; and other key statistics. Data has proved to be invaluable to the process of clinical development countywide and was the driving force behind the placement of the Medevac Helicopter on the East End of Suffolk County. The Division of EMS has been extremely proactive and productive in response to these data as demonstrated by their case-by-case remediation of providers, the development of continuing education, and their continuing feedback to ambulance services.

Response time is an essential baseline measurement of every EMS System. Many of the illnesses and injuries treated by EMS providers are ‘time dependent.’ Minutes and indeed seconds count. A comprehensive EMS system should be able to clearly describe the mean response time by patient type, by time of day, and by geographical area. To not have such data available is almost incomprehensible given the current ‘state of the art.’ Nonetheless, in Suffolk County there is no comprehensive process for the collection and analysis of response time data. The primary repositories of response data in Suffolk County are the 11 Public Service Answering Points (PSAPs) who use differing systems for recording and reporting. Unifying reported data will be a critical first step in any system of quality improvement.

**The Working Group strongly recommends that a universal system of data collection and reporting be established that includes the following times; 911 call (or local number call), dispatch, scene arrival, time on scene, and arrival at hospital.**

These data should also document any instances of Mutual Aid (calls covered by neighboring EMS services) to establish accurate times from the initial call to 911 until arrival of the first ambulance and/or first responder at scene and the delivery of the patient to the hospital.

These data can then be available for analysis by the REMSCO, REMAC, the Division of EMS, FRES, Suffolk County, town and village governments, as well as every EMS service throughout the County.

An analysis of response intervals will be invaluable to determine the need for improved response strategies, comparison of regional response times, identification of appropriate

scene times, and response to specialty referral centers for trauma, cardiac, stroke and other types of emergencies that require unique resources for care. County, town, and village government can use reported response times to recognize the quality of EMS service and identify funding needs or interventions that may improve care in their respective communities. Hospitals can use data to evaluate systems of care countywide.

### **Barriers to Data Collection**

It is the Working Group's belief that EMS services have a genuine concern for the negative impact sometimes generated by the public reporting of data. This is a reasonable concern given the propensity of local and regional newspapers to publish stories that highlight negative outcomes. However, this data is so important that this challenge must be overcome. If response time remains unmeasured - it cannot be objectively improved.

A system should be devised so that each EMS service can compare its times to other services throughout the County. Each service would receive its individual response data but would be blinded to the specific identity of other services which would be classified by "division only" to allow for regional comparisons of response times. This strategy would respect the issue of confidentiality, while providing key individuals with essential data needed to make educated decisions and suggestions for possible improvements.

**PSAPs should be strongly encouraged to contribute their response data in a standardized form to a centralized database for the purposes of measuring and improving the response time in Suffolk County.**

### **Coordination through Leadership Collaboration**

Currently the Suffolk County EMS System is comprised of 101 separate agencies. Each agency has its individual leadership hierarchy that determines the process and structure for that agency. This results in system-wide inconsistency. As one travels from one jurisdiction to another the level of care may vary significantly from basic life support to advanced life support. For example, one may receive optimal pain management or seizure control in one community while another may choose not to include such advanced interventions. Having the administrative support and collaboration countywide will establish the infrastructure necessary to mitigate barriers to developing consistency. Additional advantages of a more robust administrative collaboration may be management coordination of shift scheduling, training coordination, purchasing, health care insurance, disability, and other benefits than can be gained by cooperative efforts among agencies. An excellent example of cooperative resource management and collaboration is the current Islip Town tactical unit program, whereby a designated agency staffs an ambulance for a defined period of time and serves multiple jurisdictions as either primary or back-up response.

**The Working Group strongly encourages agencies to collaborate across borders, thereby creating a true EMS System in Suffolk County. We encourage political leadership, REMSCO and REMAC to work with agencies to facilitate this critical goal.**

## **Development through Consensus Building**

The Working Group recognizes the political complexity of the Suffolk County EMS System and proposes “a development through consensus model”. The fundamental guiding principal of this model should be shall be a patient-centric, evidence based approach, driven by the medical leadership of the community. We are encouraging governmental and organizational leadership to communicate and support data collection, improvement strategies, and establish an overall focus on quality EMS.

We also recognize that change will be incremental but is likely to start with strong Medical Direction, the support of political leadership throughout the County, and identification of best practices to help guide services in strategic development.

In order to develop the “consensus model”, a representative cross-section of EMS, Hospital, Police, and Government sectors must be organized to construct a process which will ensure that the model will be both comprehensive in its scope, and timely in its implementation.

A suggested format for the development could include:

1. **Identification of the desired future state of EMS in Suffolk County.** It is a common belief that Continuous Quality Improvement (CQI) has no endpoint, yet strives for continued excellence and pursuit of metrics that minimize standard deviations from an ideal state.
2. **Identification of current “best practices” or “benchmark” agencies in Suffolk County.** There are several models, including paid EMS response, paid/volunteer hybrid response, and all-volunteer response that are currently in place in the County. These agencies have been able to significantly reduce response times, improve the quality of care, and monitor their own results for CQI.
3. **Gap Analysis.** Once the benchmark has been established for the near term, the next step is to determine the gaps that are present between the current agencies and the benchmark data. Again, to be consistent with the overarching goals of EMS, the initial gap targets should be those that will result in improved patient outcome (e.g. Ambulance response times).
4. **Development of strategies to drive the gaps.** It is incumbent on the System to continuously improve. One of the past barriers to implementation of System-wide changes has been the complex and large number of agencies that provide EMS service to the population of Suffolk County. This participation should not be limited in its scope, but may encompass inter-agency cooperative agreement, financial support, training, and re-thinking of traditional boundary response

models. *It is imperative that strategies include involvement from all agencies in the System.*

5. **Implementation of strategies.** A timeline or project model should be established to allow all participants to plan for implementation, which may require additional staffing, finance, and re-organization of existing agency response protocols.
6. **Development of metrics for Measurement.** One of the key steps to ensuring the success of this endeavor is the development of metrics that: a) are attainable with reasonable effort; and b) will show an obvious improvement in the System Quality in Suffolk County. The stress on the word “obvious” takes into account the need for subjective and objective results, with a positive effect on the CQI for EMS.

**With the increasing population and related increase in EMS System demand in Suffolk County, time is of the essence. We must work together to establish a course of action that includes the recommendations outlined in this document. The Working Group members and Interviewed Experts all share the common belief that there is a need to continuously improve The Suffolk County EMS System.**

**In conclusion, the Working Group recommends: a) that the Division of EMS remains within the Department of Health Services; b) the immediate hiring of a qualified full-time System Medical Director; c) the centralized reporting of response times for all EMS agencies and PSAPs; and d) that agencies should collaborate across borders, thereby creating a true EMS System in Suffolk County.**

REMSCO would welcome the opportunity to work with county, town and village government, other EMS organizations, and every EMS service in Suffolk County to achieve these critical goals.

*Thank you to Robert Delagi and Kevin Pesce for the support in compiling the statistical data presented in this document. We also thank the EMS experts that attended our informational sessions for donating their valuable time to this effort.*

## **Appendix A**

### **Experts Interviewed by Working Group**

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Linda Mermelstein, MD  
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Suffolk County Division of EMS  
Suffolk County Department of Health  
Services

Jeanne Alicandro, MD  
Past Medical Director  
Suffolk County Division of EMS  
Suffolk County Department of Health  
Services

Robert Delagi, EMT-P  
Chief, Prehospital Medical Operations  
And Acting Director  
Suffolk County Division of EMS  
Suffolk County Department of Health  
Services

Thomas Lateulere, EMT-P  
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Suffolk County Department of Health  
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Gus Pappas, EMT-P  
Retired Deputy Chief  
New York City EMS and Fire  
Department of New York

Robert Cavalieri, EMT-P  
Manager  
Setauket Fire District

Bruce Talmage  
President  
Suffolk County Ambulance Chiefs  
Association

David Carrigan  
Chairman  
Suffolk County FRES Commission

David Brenner, EMT-P  
Past Chairman  
Suffolk Regional EMS Council

**Appendix B**  
**NY State DOH Letter**



STATE OF NEW YORK  
DEPARTMENT OF HEALTH

RECEIVED

AUG 17 2009

Corning Tower The Governor Nelson A. Rockefeller Empire State Plaza Albany, New York 12237

OFFICE OF THE  
SUFFOLK COUNTY EXECUTIVE  
HARRISVILLE, New York 12237

Richard F. Daines, M.D.  
Commissioner

Wendy E. Saunders  
Executive Deputy Commissioner

#5162

August 12, 2009

Mr. Steve Levy  
County Executive  
H. Lee Dennison Building  
100 Veterans Memorial Highway  
P.O. Box 6100  
Hauppauge, NY 11788-0099

Dear Mr. Levy:

This is in response to your letter of March 23, 2009 to Ed Wronski in relation to the transfer of the EMS Division within the Suffolk County Health Department to the Department of Fire Rescue and Emergency Services (FRES). The transfer of EMS is not approved for the following reasons:

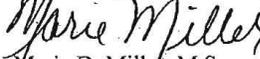
- Emergency Medical Services must be under the direct supervision of the Public Health Director or Commissioner. The organization chart shows a dotted line relationship between the LHD and EMS, which indicates indirect supervision, not direct supervision. The proposed transfer appears to limit the oversight of the Public Health Commissioner and effectively removes health oversight that affect the emergency care provided to patients in Suffolk County. Additionally, oversight of the Health Commissioner must include the operational components of the EMS system. The SDOH cannot approve the use of public health funds unless the county health Commissioner is clearly in charge of all the goals and responsibilities of the EMS Division.
- The proposed MOU between FRES and the Suffolk County Health Department must be provided to the SDOH for review before consideration of any approval.
- The Local Health Department municipal budget must include the costs for these services. According to the proposal, the costs will be included in the FRES budget.
- The proposal states that over 70% of all calls received by Fire Rescue 911 are for Medical Emergencies. Only those calls that are public health related are eligible for State Aid reimbursement.

In addition, as noted in our letter of August 6, 2009 to Dr. Chaudry, the costs of Personal Service and OTPS are questionable:

- The only Personal Service items that are eligible for State Aid are the Coordinator of Emergency Med and a Clerk Typist. The proposal shows 14 Personal Service items for staffing for the EMS program.
- The only OTPS item that appears to be eligible for State Aid is Equipment. Supplies (\$221,800), Contractual Expenses (\$871,574) and Interfund Transfers (\$286,809) are not eligible for State Aid.

We would be happy to review a revised proposal for the transfer that addresses the aforementioned items. If you wish to discuss this further, please do not hesitate to call me at (518) 473-4223.

Sincerely,



Marie D. Miller, M.S.  
Deputy Director  
Office of Public Health Practice

cc: Bryan Tarr  
Nancy Bradford/Marta Baez (Metropolitan Region, 90 Church Street, NYC)  
Humayun J. Chaudhry, D.O, M.S., Suffolk County Health Commissioner  
Donald Fahey/Carolyn Kagan/Ed Nadel/Angela Kohl (Suffolk County HD)  
Ed Wronski  
Gary Tutthill

## Appendix C



Medical Direction of Emergency Medical Services PREP

This Policy Resource and Education Paper is an explication of the Policy Statement [Medical Direction of Emergency Medical Services](#).

### **ACEP EMS Committee**

All aspects of the organization and provision of basic (including first responder) and advanced life support emergency medical services (EMS) require the active involvement and participation of physicians. Furthermore, every out-of-hospital service that provides any level of life support or expanded scope service must have an identifiable physician medical director at the local level as well as at the regional or state level to ensure quality patient care. Additional responsibilities include involvement with design, operation, evaluation and ongoing revision of the system including initial patient access, dispatch, out-of-hospital care, and/or delivery to an emergency treatment facility.

If medical direction is to be effective, the physician must have official authority directly over patient services. The medical director, therefore, must have a well defined role with respect to the other components of the system, the responsibility to develop necessary medical policies and procedures, and the power to limit the activities of those under the medical director's supervision who deviate from the established clinical standards of care or do not meet training standards.

Physician direction of out-of-hospital care may be accomplished through a combination of off-line and on-line medical direction using prospective, concurrent, and retrospective methods.

### **OFF-LINE (PROSPECTIVE AND RETROSPECTIVE) MEDICAL DIRECTION**

Off-line medical direction includes the administrative promulgation and enforcement of accepted standards for out-of-hospital care. Off-line medical direction can be accomplished through both prospective and retrospective methods. Prospective methods include, but are not limited to, training, testing and certification of providers, protocol development, operational policy and procedures development, and legislative activities. Retrospective activities include, but are not limited to medical audit and review of care, (process improvement), direction of remedial education, and limitation of patient care functions if needed. Committees functioning under the medical director with representation from appropriate medical and provider personnel can perform various aspects of prospective and retrospective medical direction.

## **ON-LINE (CONCURRENT) MEDICAL DIRECTION**

On-line medical direction is the medical direction provided directly to out-of-hospital providers by the medical director or designee, generally in an emergency situation, either on-scene or by direct voice communication. The mechanism for this contact may be radio, telephone or other means as technology develops, but must include person-to-person communication of patient status, and orders to be carried out. Ultimate authority and responsibility for concurrent medical direction rests with the medical director.

## **ROLE OF THE LOCAL EMS MEDICAL DIRECTOR**

The medical director should have authority over all clinical and patient care aspects of the EMS system or service, with the specific job description dictated by local needs. The job description should include, as a minimum, the following qualifications and responsibilities.

## **QUALIFICATIONS**

To optimize medical direction of all out-of-hospital emergency medical services, these services should be managed by physicians who have demonstrated the following:

### **Essential:**

1. License to practice medicine or osteopathy.
2. Familiarity with the design and operation of out-of-hospital EMS systems.
3. Experience or training in the out-of-hospital emergency care of the acutely ill or injured patient.
4. Experience or training in medical direction of out-of-hospital emergency units.
5. Active participation or experience in the ED management of the acutely ill or injured patient.
6. Experience or training in the instruction of out-of-hospital personnel.
7. Experience or training in the EMS improvement process.
8. Knowledge of EMS laws and regulations.
9. Knowledge of EMS dispatch and communications.
10. Knowledge of local mass casualty and disaster plans including preparation for responding to terrorism and weapons of mass destruction.

### **Desirable:**

1. Board certification in emergency medicine by the American Board of Emergency Medicine or the American Board of Osteopathic Emergency Medicine.
2. EMS Fellowship training.
3. Completion of an EMS Medical Directors training course.

\* Service as an EMS medical director which began prior to January 1, 2000 can be

substituted for the above two requirements.

## **RESPONSIBILITIES**

To optimize medical direction of all out-of-hospital emergency medical services, physicians functioning as medical directors should, at a minimum:

1. Serve as patient advocates in the EMS system.
2. Set and ensure compliance with patient care standards including communications standards and dispatch and medical protocols.
3. Develop and implement the protocols and standing orders under which the out-of-hospital care provider functions.
4. Develop and implement the process for the provision of concurrent medical direction.
5. Ensure the appropriateness of initial qualifications of out-of-hospital personnel involved in patient care and dispatch.
6. Ensure the qualifications of out-of-hospital personnel involved in patient care and dispatch are maintained on an ongoing basis through education, testing, and credentialing as the local/state authorities have determined.
7. Develop and implement an effective process improvement program for continuous system and patient care improvement.
8. Promote EMS research.
9. Maintain liaison with the medical community including, but not limited to, hospitals, emergency departments, physicians, out-of-hospital providers, and nurses.
10. Interact with regional, state, and local EMS authorities to ensure that standards, needs, and requirements are met and resource utilization is optimized.
11. Arrange for coordination of activities such as mutual aid, disaster planning and management, and hazardous materials response including weapons of mass destruction and terrorism. This must include training of providers in these areas.
12. Promulgate public education and information on the prevention of emergencies.
13. Maintain knowledge levels appropriate for an EMS medical director through continued education.

## **AUTHORITY FOR MEDICAL DIRECTION**

Unless otherwise defined or limited by state or regional requirements, the medical director must have authority over all clinical and patient care aspects of the EMS system including, but not limited to, the following:

1. Recommend certification, recertification, and decertification of non-physician out-of-hospital personnel to the appropriate certifying agency.

2. Establish, implement, revise, and authorize the use of system-wide protocols, policies, and procedures for all patient care activities from dispatch through triage, treatment, transport, and/or non-transport.
3. Establish criteria for level of minimal initial emergency response (e.g., first responder, Basic EMT, EMT-Intermediate, Paramedic).
4. Establish criteria for determining patient destination in a non-discriminatory manner.
5. Ensure the competency of personnel who provide on-line medical direction to out-of-hospital personnel including, but not limited to, physicians, EMTs, and nurses.
6. Establish the procedures or protocols under which non-transport of patients may occur.
7. Require education and testing to the level of proficiency approved for the following personnel within the EMS system:
  - a. First Responders
  - b. EMTs, all levels
  - c. Nurses involved in out-of-hospital care
  - d. Dispatchers
  - e. Educational coordinators
  - f. On-line physicians
  - g. Off-line physicians
8. Implement and supervise an effective process improvement program. The medical director shall have access to all relevant records needed to accomplish this task.
9. Remove a provider from medical care duties for due cause, using an appropriate review and appeals mechanism.
10. Set or approve hiring standards for personnel involved in patient care.
11. Set or approve standards for equipment used in patient care.

## **OBLIGATIONS OF THE EMS SYSTEM**

The EMS system has an obligation to provide the medical director with the resources and authority commensurate with the responsibilities outlined above, including:

1. Compensation for the time required.
2. Necessary material and personnel resources.
3. Liability insurance for duties/actions performed by the medical director.
4. A written agreement that delineates the medical director's authority and responsibilities and the EMS system's obligations.

## **REGIONAL or STATE MEDICAL DIRECTOR**

The regional medical director when appointed by the geo-political entity will be the person responsible for the medical oversight of the EMS system and out-of-hospital system within a defined area whether it is a designated region or an entire state. The individual appointed should have oversight responsibility for all units within the area.

Treatment protocols should be reviewed for consistency, and a systematic approach to process improvement for the entire system designed and implemented. The Regional/State medical director will be the focus of the system, and will set guidelines for timely and appropriate care for all constituents. In order for this system to function properly, the position should be codified in state regulation, and backed by the lead agency for EMS.

## **QUALIFICATIONS**

Regional/State Medical Directors should possess the following:

### **Essential:**

1. License to practice medicine or osteopathy in the State.
2. Experience with the design and operation of out-of-hospital EMS systems.
3. Experience or training in medical direction of out-of-hospital emergency units.
4. Active participation or experience in the ED management of the acutely ill or injured patient.
5. Experience or training in the EMS process improvement process.
6. Knowledge of EMS laws and regulations.
7. Knowledge of EMS dispatch and communications.
8. Knowledge of regional/state mass casualty and disaster plans.

### **Highly Desirable:**

1. Board certification in emergency medicine by the American Board of Emergency Medicine or the American Board of Osteopathic Emergency Medicine.
2. EMS Fellowship training.

\* Service as a State EMS medical director which began prior to January 1, 2000 can be substituted for the above two requirements.

## **RESPONSIBILITIES**

To optimize medical direction of all out-of-hospital emergency medical services, physicians functioning as regional/state medical directors should, at a minimum:

1. Serve as an advocate for the EMS system in governmental relations.
2. Set and ensure consistency in local patient care protocols, including communications standards, dispatch and medical protocols.
3. Work with local directors to develop and implement the protocols and standing orders under which the out-of-hospital care provider functions.
4. Ensure the appropriateness of initial training of out-of-hospital personnel involved in patient care and dispatch.
5. Ensure the certifications of out-of-hospital personnel involved in patient care and dispatch are maintained on an ongoing basis through education, testing, and

- credentialing.
6. Develop and implement an effective regional/state process improvement program for continuous system and patient care improvement.
  7. Promote EMS research at the local, regional and state level.
  8. Interact with regional, state, and local EMS authorities to ensure that standards, needs, and requirements are met and resource utilization is optimized.
  9. Provide for coordination of activities such as mutual aid, disaster planning and management, and hazardous materials response.
  10. Promulgate public education and information on the prevention of injury and handling of emergencies.

## **AUTHORITY FOR MEDICAL DIRECTION**

Unless otherwise defined or limited by state requirements, the regional/state medical director must have authority over clinical and patient care aspects of the EMS system as well as advisory responsibility to the lead agency for policy development.

1. Adjudicate certification, recertification, and decertification decisions made in the underlying layers of the EMS system, with final authority for clinical matters (at the state level).
2. Establish, implement, revise, and authorize region/state-wide protocols, policies, and procedures for all patient care activities from dispatch through triage, treatment, and transport with the power to enforce recommendations to the underlying system.
3. Establish the procedures or protocols under which non-transport of patients may occur.
4. Advise the certifying body on required education and testing to the level of proficiency approved for all personnel within the EMS system:
5. Implement and supervise an effective regional/state level process improvement program. The medical director shall have access to all relevant records needed to accomplish this task.
6. Establish and approve standards for equipment used in patient care throughout the system.

## **OBLIGATIONS OF THE EMS SYSTEM**

The EMS system has an obligation to provide the regional/state medical director with the resources and authority commensurate with the responsibilities outlined above, including:

1. Compensation for the time required.
2. Necessary material and personnel resources.
3. Liability insurance for duties/actions performed by the medical director.
4. A written agreement that delineates the regional/state medical director's authority and responsibilities and the EMS system's obligations.

## **AIR MEDICAL TRANSPORT PROGRAMS**

An air medical service must appoint the medical director for an air medical program. The medical director will be the person responsible for the clinical oversight of the flight program. The medical director shall possess, at a minimum, the credentials required for medical control in the jurisdiction where the service is based. Most air transport services provide more inter-facility transfers than scene medical/injury care. For this reason, the medical director must be well versed in EMS out-of-hospital care as well as critical care. They should develop a cadre of consulting physicians who can provide backup in necessary special circumstances that arise in transfer from one institution to another. Medical control may be on-line through radio communication, off-line (predominant) with protocol and standard order development, and visual. The visual control will be seen where services have an on-board physician directing care at the scene.

## **QUALIFICATIONS**

Air Medical Directors should possess or perform the following:

### **Essential:**

1. License to practice medicine or osteopathy in the jurisdiction where the program is based.
2. Knowledge of the design and operation of out-of-hospital EMS systems, both ground and flight.
3. Experience or training in medical direction of out-of-hospital emergency units.
4. Active participation or experience in the management of critically ill or injured patients.
5. Experience or training in the EMS process improvement process.
6. Knowledge of EMS laws and regulations.
7. Knowledge of air dispatch and communications as well as the interface to the ground communications system.
8. Knowledge of regional/state mass casualty and disaster plans.

### **Desirable:**

1. Board certification in emergency medicine by the American Board of Emergency Medicine or the American Board of Osteopathic Emergency Medicine.

\* Service as a medical director prior to January 1, 2000 can be substituted for this requirement.

## **RESPONSIBILITIES**

To optimize medical direction of the air medical service, physicians functioning as medical directors should, at a minimum:

1. Have final authority over all clinical aspects of the service.
2. Oversee that medical personnel are adequately trained and qualified to provide care.
3. Ensure that appropriate equipment and pharmaceuticals are provided for the mission.
4. Ensure that medical protocols for treatment are commensurate with the capabilities of the crew, and governing regulations.
5. Ensure the certifications of flight and dispatch personnel are maintained on an ongoing basis through education, testing, and credentialing.
6. Develop and implement an effective process improvement program for continuous service and patient care improvement.
7. Promote EMS research at the local, regional and state level.
8. Interact formally with regional, state, and local EMS authorities to ensure that standards, needs, and requirements are met and resource utilization is optimized.
9. Provide for coordination of activities such as mutual aid, disaster planning and management.
10. Promulgate public education and information on the prevention of injury and handling of emergencies.
11. Ensure that service personnel and equipment meet regulatory standards

## **AUTHORITY FOR MEDICAL DIRECTION**

Unless otherwise defined or limited by state requirements, the medical director must have authority over clinical and patient care aspects of the service.

1. Establish, implement, revise, and authorize treatment and transfer protocols, policies, and procedures for all patient care activities from dispatch through treatment, and transport.
2. Establish the procedures or protocols under which non-transport of patients may occur.
3. Implement and supervise an effective process improvement program. The medical director shall have access to all relevant records needed to accomplish this task.
4. Advise and approve standards for equipment used in patient care.

## **OBLIGATIONS OF THE AIR MEDICAL SERVICE**

The EMS system has an obligation to provide the regional/state medical director with the resources and authority commensurate with the responsibilities outlined above, including:

1. Compensation for the time required.
2. Necessary material and personnel resources.
3. Liability insurance for duties/actions performed by the medical director.
4. A written agreement that delineates the regional/state medical director's authority and responsibilities and the EMS system's obligations.

## **NONEMERGENCY TRANSPORT SERVICES**

The medical director of a nonemergency transport service is one who will function as the person with medical oversight of the out-of-hospital services provided such as in transportation of stable, inter-facility patients, and expanded scope areas as they develop. This role may be filled by the EMS Medical Director if personnel are shared, and should have authority over all clinical and patient care aspects of the service provided, with the specific job description dictated by local, governmental, and environmental needs. The job description should be similar to those of the local medical director with the addition that the nonemergency transport service medical director must be aware of the differing conditions extant in the varied services provided. The nonemergency transport service medical director will be expected to function as advisor to out-of-hospital personnel who will be able to function primarily by offline control and protocols. Certain areas of expanded scope will be necessary, and should be taught, tested and approved by the nonemergency transport medical director.

## **WILDERNESS EMS**

The wilderness EMS medical director should have authority over all clinical and patient care aspects of the service, with the specific job description dictated by local and environmental needs. The job description should include those of the local medical director with the addition that the wilderness medical director should be aware of the environmental conditions and hazards such as hiking, climbing, caving, water sports, etc., extant in the area. The medical director will function as an advisor to out-of-hospital personnel who will function primarily by off-line control and protocols due to lack of radio communications. Certain areas of expanded scope will be necessary, and should be taught, tested and approved by the medical director, with concurrence of the regional or state director as well as the lead agency for the state. These areas of expanded scope should be encouraged, as the care will be emergent and often otherwise unavailable to

the victim until evacuation. Flexibility will be required, with individualized programs for various areas of the country.

## **TACTICAL EMS MEDICAL DIRECTOR**

The tactical EMS medical director should have authority over all clinical and patient care aspects of the service, with the specific job description dictated by local and environmental needs and participating public safety authorities. The job description should include those of the local medical director with the addition that the tactical EMS medical director should be aware of the environmental conditions and hazards of a tactical scene with the needs for personal protective equipment and prolonged duty of EMS as well as police personnel. By definition, many scenes will be related to terrorism, and a special need for knowledge of the weapons used by terrorists and those weapons of mass destruction. Knowledge must be available to each operator on the hazards of WMD, and the basics for dealing with weapons such as biologic and chemical agents. The medical director will be expected to function as advisor to out-of-hospital personnel and as a resource to the community. Personnel must be able to function primarily by visual and offline control, and protocols must be established in advance for evacuation of casualties and care in scenes of various levels of security. Certain areas of expanded scope will be necessary and should be taught, tested and approved by the medical director with concurrence of the regional or state director as well as the lead agency for the state. These areas of expanded scope should be encouraged, as the care will be emergent and, even in urban areas, assumed to be out of the scope of normal EMS service.

## **INTERFACILITY PATIENT TRANSFERS**

Medical direction is a critical component of all ground and air ambulance services, including inter-facility transfer services. Air and ground ambulances that transfer patients must be capable of providing emergency care during transport. Optimal planning for transfer considers individual patient medical requirements and an understanding of the capabilities of the personnel and system used for patient transfer. The system design, determination of the scope of practice of its providers, and the assurance that patient care is rendered consistent with this scope of practice, are essential medical direction functions.

Medical direction of the transferred patient is a shared responsibility. The transferring physician is responsible under Federal laws for assuring that the patient is transferred by qualified personnel and appropriate equipment. Off-line medical control for the inter-facility transfer of patients is the responsibility of the EMS system and its medical director unless another responsible physician is identified, such as exists in hospital-based or private ambulance critical care transport or air medical services.

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