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Best Practices and New Strategies for EMS Unit Hospital Wait Time Delays in
Emergency Departments

When a citizen activates the Emergency Medical Services system, it is taken for granted that qualified personnel will respond quickly to the scene and render prompt and efficient emergency care. For over 35 years, progressively modern EMS systems across the state have worked tirelessly to achieve this goal and their efforts have significantly improved the EMS Standard of Care. However, as the State of Florida grows, it becomes increasingly difficult to ensure unit availability for many agencies, and for EMS systems to respond to the “most widely used ambulance response – time standard”, which is eight minutes and 59 seconds (Fitch 2005). The National Fire Protection Association has a very similar performance measure as they require cities and counties to “provide for the arrival of an ALS company within an eight minute response time to 90% of incidents...” (NFPA 1710). For communities to work towards these “optimal response times”, EMS units must be made available for response. Excessive hospital delays compromise the capacity of limited EMS resources increasing response times and adversely affecting patient care. Systemwide effectiveness and efficiency can only be improved with adoption of best practices aimed at optimizing utilization of limited EMS resources. The information that

follows is intended to share ideas and promote what EMS can do at local, regional, and state levels to reduce excessive hospital delays and facilitate diversions.

The purpose of this position paper is to establish a position for the Florida EMS Community on these issues and suggest recommendations for standards or policy to effectively address these challenges.

Any real or implied authority for this document originates with the Florida State EMS Advisory Council which operates through the Florida Department of Health, with Advisory Council Members being appointed by the Florida State Surgeon General.

Definitions

This document utilizes a number of key terms which deserve definition.

Definition of key terms:

- A. “Beds” defines beds, both licensed and non-licensed temporary and permanent, nursing and treatment stations including but not limited to wheel chairs, stationary chairs, benches, gurneys and cots located inside the ED or hospital.
- B. “Capacity” defines that the number of permanent and temporary ED beds, not excluding those which have been created as a result of a declaration of disaster and/or hospital protocols which are in place and intended to avoid diversion of units or “Wall Time”.
- C. “Critical” defines any patient requiring simple or complex IV management of potentially life threatening cardiac arrhythmia, any type of automatic ventilation or emergent infusion of more than one

unit of packed cells or whole blood, and who will be or in all probability may be admitted to an advanced care unit of the hospital.

D. “Disaster” defines a situation such as the hospital’s disaster plan is initiated and reported to the appropriate Department of Health (DOH) official.

“Divert or Diversion” defines a situation which indicates that the hospital ED is requesting action from the EMS Medical Director to order EMS to make every effort to avoid bringing patients to a respective hospital ED. Reasons for this request may include saturation or disaster.

E. “EMS Duty Supervisor” means an individual which is in charge of an EMS shift or a particular territory, zone, or district in regards to EMS service. An EMS Duty Supervisor may be employed by a Fire or Non-Fire, Governmental or Private EMS service. The EMS Duty Supervisor is an individual that supervises or oversees the activities of a particular EMS or Ambulance Service for a respective shift or in some cases multiple shifts. She or he may hold a rank, such as Lieutenant, Captain, Battalion Chief, or District Chief. In other EMS service model examples she/he may hold a title such as Zone or Duty Supervisor. The EMS Duty Supervisor has limited or broad authority depending on the latitude granted to them by their superiors, agency, and local government. In the case of a small service they may not be

an independent or “fly car” EMS Duty Supervisor and the Supervisor may be in fact assigned to an EMS transport unit.

F. “Immediate patient” means a patient with an uncontrolled or questionable airway, multi –systems trauma, hemodynamically significant cardiac arrhythmia, cardiopulmonary arrest, uncontrolled hemorrhage, or other life-threatening condition that in the judgment and opinion of the attending EMS personnel responsible for the patient, necessitates transport to the closest emergency department.

G. “Reporting” means taking action to report a hospital that is in alleged violation of EMTALA or other applicable state or federal laws to CMS or ACHA due to EMS extended waiting periods.

H. “Saturation” or “ED Overload” defines that there are no beds or treatment areas that are available in the Emergency Department nor are there any beds available in any connecting areas in relative close proximity to the Emergency Department.

I. “Real Time” means the shortest amount of time possible between the time frame that an incident or event actually takes place and the point at which action is taken. For the purposes of this document, it relates to reporting or taking some other type of action. For example, when EMS reports an incident to EMS Headquarters in “Real Time”, they have reported immediately after the incident has occurred or as soon as humanly possible. To be most effective all parties need to report incidents and take appropriate actions in “Real Time”.

- J. “Wall Time” means the length of time that an EMS or Ambulance Crew is held in the Emergency Department with a patient on the EMS cot/stretchers and/or still in the primary care of EMS. When an EMS crew is experiencing “Wall Time”, they are unavailable to respond to other EMS calls.

Scope of this Document

This document should not be interpreted as a proposed change to Florida Statutes or administrative rules. We recognize that all EMS systems and hospitals across Florida differ in demographics, geography, systems structure, size, long-standing practices, and political environments. We, the Access to Care Committee are in no way attempting to dictate policy for EMS systems or hospitals, but at the same time want the EMS community to be recognized, heard, and be able to observe tangible action to aid in addressing this ever increasing problem. The following are recommendations of “Best Practices” from a large cross section of the Committee that have proven to be successful in different areas of the state. EMS systems, EMS Medical Directors should be involved in decision making in conjunction with EMS Administration as to what works best in their respective areas of the state. This conglomeration of ideas and Best Practices are contributions from systems as large as Miami-Dade Fire Rescue, and as small as EMS Services with only two permitted units. Local government laws and long-standing agreements, both written and spoken may in fact dictate procedure. We also acknowledge that EMS systems work under a Medical Director; hence, the Medical Director has authority in most, if not all areas of patient care. We cannot emphasize how imperative Medical Director involvement is in this process and fully recognize their authority and

decision making influence in this process. At the same time we also are required to acknowledge that local government, and EMS agencies that are charged by local government as EMS providers, are directly involved in day-to-day operations of EMS systems operations and are required to promptly respond to calls for help 24 hours a day, 7 days a week. These EMS agencies cannot tolerate excessive delays at receiving hospitals due to increased response time issues and cost. Average statewide ambulance wait times for patient turnover at Emergency Departments has more than doubled in the past five years from 20 minutes to an excess of over 45 minutes and has an estimated cost of \$3,353,600 annually to both governmental and private EMS providers (Zavadsky 2006). The EMS Advisory Council Access to Care Committee understands and acknowledges that hospital wait time, as they apply to EMS, is not a simple problem, but a very complex set of problems that involve physician and specialty coverage, increased area populations, a downturn in economic growth, and unfunded mandates, to name but a few. We submit that ignoring the problem will not make it go away and will progressively make matters worse. Continuation of the status quo is not in the best interest of any system stakeholder. Symbolic or inconsequential measures have failed to arrest a growing crisis. Some EMS partners in other areas of Florida have approached the problem sincerely and we salute them. Others have made some headway in bringing resolution for both EMS and for the hospital. We feel that serious efforts towards resolution and partnerships equate to improved outcomes for all involved parties

Best Practices.

The following are our recommendations of Best Practices, which as previously stated, will not work in every EMS service area or every hospital ED. Borrowing and adapting any or all of the following ideas are encouraged if they are appropriately suited to a respective EMS service area and hospital ED. Our paramount goal is to promote the highest standard of care to all patients. Optimization of system effectiveness can be achieved by adoption of best practices. Specific recommended Best Practices include:

1. EMS and Hospital Administration should meet on a regular basis. These meetings may or may not include Nursing or ED representation, and this will depend on the relationship with EMS and what the historic general attitude of the ED has been in regards to wait and “wall times”. These meetings will have little to no impact if Hospital Administration does not commit to full and continuous participation. Likewise, if EMS concerns are not taken seriously or no action is taken by Hospital Administration, the encounter will produce little to no tangible benefit. At every meeting specific examples must be cited with documentation, and EMS representation cannot speak in generalities if they expect to make any progress in regards to the EMS divert & delay problem.
2. “Wall Time” incidents should be reported in “Real Time” so that the EMS Duty Supervisor can respond promptly to the hospital, assess the situation, and initiate action (Gardner 2006). Essentially, when an EMS crew or dispatch (as dictated by EMS Administration) recognizes that the respective EMS unit is delayed in excess beyond mutually agreed on parameters, a call is initiated to the EMS Duty Supervisor. Different EMS systems will have different expectations and different time limitations. We recommend that reasonable parameters be set in writing in

3. EMS should consider forwarding what is considered to be excessive “wall time” and divert incidents to the Director of Nursing for the ED, Hospital Administration, to the County or City Administration, and to any other private or public entities that need to be educated about the situation and/or may be of assistance. EMS personnel that submit the initial incident in writing (email or paper copy) should in fact ensure that they are reporting only the objective facts related to the specific incident. EMS Administration should review all incident reports before forwarding to Hospital Administration or in extreme cases, an EMTALA enforcement agency, as it may be subject to rewrite if considered inflammatory or if it includes what may be considered inappropriate statements.

For maximum effectiveness, every significant incident of “wall time” must be reported to Hospital Administration as this will educate them to the magnitude of the problem. We acknowledge that all EMS agencies will not be able or not necessarily be permitted to take certain actions or possibly any action at all given the specific set of political, organizational, and environmental constraints under which they may operate.

4. Hospital Administration should be educated in what may be their share of liability when diverting an ambulance or holding an ED patient “on the wall”. Specific examples and incidents must be cited to be considered valid by Hospital

Administration. EMS concerns in regards to their respective hospital being used as a destination needs to be expressed and a review of these facts may be needed on a regular basis. It cannot be emphasized enough that our primary purpose is to protect the patient and to serve the public trust. Hospital Administrators and ED Staff should be educated that timely and effective patient turnover equates to available EMS units ready to respond to another call for help. To foster cooperation, Hospital Administration and the ED should also be made aware that EMS Administrators and leadership intend on exhausting all efforts in bringing resolution before involving outside agencies and/or initiating reporting the hospital for any alleged violations. EMS should do everything possible to build partnerships with Hospital Administration and obtain commitments before initiating the reporting process to another agency or authority.

5. EMS crews must be educated to report every incident of “Wall Time” or alleged EMS system abuse to EMS Administration. This can be in the form of email to the EMS Duty Supervisor or paper report. If the EMS Duty Supervisor responds to the hospital (see #2) she or he may initiate the report and may choose or not choose to involve ED and/or Hospital Administration at that time. Status of the patient should be included (Green, Yellow, Red) and EMS Administration may consider excluding patient identifiers depending on advice from legal counsel. EMS crews should be trained to report honestly and objectively, stating only facts without any embellishment. Actual waiting or “Wall Time” should be included in the report as well. Also important is to document which hospital staff member acknowledged the EMS crew or if the EMS crew recognized that they were

intentionally ignored and/or if inadequate action was taken by ED staff. It is equally important for EMS crews to be professional and polite but make sure they are seen, heard, and acknowledged by ED staff, especially in a busy ED. If a report of “Wall Time” is given credence by the EMS Duty Supervisor, it may be forwarded upline to EMS Administration so that it may be included in the next meeting with Hospital Administration. Consistency in action is key when and if any or all of these Best Practices are initiated.

6. EMS Administration should consider maintaining a “Master” list of every delay/divert incident. The “Master” list should be maintained at EMS Headquarters or other centralized/appropriate place. Important to remember, is that an “incident” of “Wall Time” for one agency or area may not be considered an incident in another area of Florida. As previously stated, EMS and Hospital Administration should agree to set “time limits” or parameters in advance to avoid misunderstanding. Policies that are developed as a result need to be widely distributed and included as part of EMS and hospital training.

7. It is important to conduct a full calculation of all costs and benefits when reporting alleged violations outside of the local EMS/Hospital Community. EMS/Hospital relationships may, and probably will become strained when and if outside agencies become involved. Depending on the manner of presentation and attitudes, hospital rank-and-file hospital staff members may consider, or it may have been implied to them by a co-worker or other involved staff member, that these “Wall Time” complaints and reports of incidents are in fact petty, not warranted, and imply there is nothing that the hospital can do to remedy the

problem. In the worst case scenario, the attitude or philosophy of “it’s not my problem” may be embraced by hospital personnel and directly or indirectly communicated to EMS. In extreme cases, hospital rank-and-file staff members, and possibly even middle management, may in fact take it upon themselves to attempt to block cooperation and/or make situations worse than they could or would be. EMS leadership also needs to bear in mind that what may have been considered an insignificant EMS error or omission in the past, may suddenly assume new significance in an incident report to Hospital Administration or other authority. It is imperative that EMS and Hospital Administration address these problems in “Real Time” and make every effort to curb these attitudes and activity. All EMS and Hospital members of individual shifts, groups, and sub-groups, are “linking pins” (Likert), and need a level playing field and need to nurture a spirit of cooperation in order to facilitate adjustments or correct problems as they occur. Our actions each day can either exacerbate or help alleviate a presently dysfunctional and ongoing problem.

8. In addition to frequently meeting and communicating with hospital ED leadership and Administration, EMS providers and leaders should communicate, share ideas, and implement best practices that are applicable to their respective agencies.
9. We recommend that only EMS Medical Directors are authorized to allow hospitals to go on diversion status. We recommend that the Medical Directors take all factors into consideration before dictating diversion status and further recommend that EMS Medical Directors utilize protocols as the norm in conjunction with this action. Some valid examples of why an EMS Medical

Director may order EMS to go on Diversion status may be: total and verifiable saturation of the ED, lack of EKG monitored beds, or downed critical equipment or hospital systems (X-Ray, CT, electrical power, etc.). Additionally, all significant “Wall Time” incidents should be forwarded to the Medical Director as well.

10. We recommend that the maximum amount of hours allowed for hospitals to be on diversion status is 8 (eight).

11. If a hospital is authorized to go on diversion status or there is a valid “Wall Time” incident, we recommend that post event, EMS Administration, the EMS Medical Director, EMS Leadership, Hospital Administration and ED Management meet to discuss as to what variables resulted in diversion status and conduct an analysis of the divert or delay incident(s) and what remedial measures can be implemented to avoid the same outcome in the future. This post event analysis should be conducted as soon as possible.

12. We support and recommend placement and implementation of modern, computerized systems to provide real time alerts to EMS concerning ED saturation and general hospital bed status. Use of these systems should be utilized to assist in determining hospital destination.

13. Additional beds should be placed in ED storage areas or Hospital Administration should allow EMS to place additional ambulance cots in the storage area for use when saturation of the ED dictates this response. We understand that a qualified provider must be responsible for patient care. During periods of saturation, the vast majority of the EMS community shares the common belief that either

additional hospital staff be called in or called down from various units of the hospital to assist in caring for patients. An alternative is the creation of a transitional unit created in another area away from the ED for the purpose of providing care to admitted patients that are waiting for a hospital floor bed (Case/Stallings 2008). If this is not feasible, EMS personnel could be called in or an on duty Paramedic might be used to care for more than one patient that is waiting on a hospital bed. The associated costs of using EMS personnel may be negotiated and billed to the hospital or EMS Administration may choose to absorb the cost. The majority of the Access to Care Committee believes that once EMS arrives at the hospital with a patient, he or she becomes a hospital patient by mandate of Federal Law (EMTALA). Therefore, associated cost of additional EMS staffing should be shared by the hospital (Chapman 2005).

14. We recommend the promotion, implementation, and use of advanced technology, such as cameras capable of transmitting streaming video to assist field EMS crews with documentation, to assist Medical Control Physicians with field diagnosis and appropriate medical clearance when warranted. Adequate medical clearance with solid documentation will lessen EMS system exposure and may contribute in transporting fewer patients to the ED.
15. In areas of Florida that experience documentation and validation issues related to EMS “Wall Time” delays, we recommend the consideration of a swipe-card, time-clock punch card, or other type of electronic documentation system (Turner, et al 2008). We acknowledge that obtaining credible documentation of “Wall Time” delays will not ultimately solve the problem but use of these type systems

will confirm delays and gauge improvement. EMS Crews would ultimately “clock in” at the nurses station upon their arrival with the patient and would likewise “clock out”, when transfer of care of the patient is turned over to the hospital and the patient is placed in a hospital bed. Cost may be shared by EMS and hospital, absorbed by one entity, or grant funding may be sought out for this project.

16. We recommend that EMS and Hospital Administration negotiate realistic fees that reflect the amount of time EMS units are delayed at the hospital. As a hospital would bill for patients being held at the hospital, even when they are being discharged or have been discharged to another facility, EMS should have the ability to bill the hospital fair market value for EMS unit delay. These charges that are incurred and paid by the hospital may allow for, or contribute to funding additional EMS units to respond to emergencies when others are “on the wall”.

17. We have identified one of the problems that contribute to delays or “Wall Time” to be private physicians using the ED for non-emergencies. We acknowledge that we have no authority over hospitals or private physicians; however, we respectfully suggest that Hospital Administration designate another area other than the ED for these activities and consider appropriate policy changes.

18. We recommend the development of multimedia educational materials, which include but are not limited to EMS Community produced radio and TV PSAs, pamphlets, internet site links, and standardized programs for EMS Speaker Bureaus, in an effort to educate the public about the severity of the problem. Information presented should address EMS and ED myths such as patients believing that EMS transport reduces ED waiting room time or that presenting at

the ED will be a simple and quick fix for their ailments and illness. Frequent users of EMS and EDs that could in fact be seen in a doctor's office or other appropriate care facility should be given materials at the time of transport. We also recommend training programs for EMS personnel intended to teach the EMTs and Paramedics how to counsel a patient correctly, effectively, and within the EMS Medical Director's Medical Protocols, as it applies to appropriate use of 911 and EMS transport to the ED.

19. We also recommend training programs for EMS Administrators and Speakers

Bureaus on methods and techniques for physician outreach and EMS Awareness education in regards to the appropriate use of 911 and ED use by private physicians. Speaking points may include the necessity of expediently and effectively discharging patients in a timely manner to free hospital bed space and obtaining "buy in" from this very important constituency group.

20. We recommend that local EMS and Fire personnel should be granted an expanded scope of practice and greater discretion by the Medical Directors. For this specific function, Medical Protocols would have to be amended and personnel would have to be trained "commensurate to duty", allowing them to administer somewhat higher levels of emergency care either at the station or in the field. Medical Directors that consider these progressive initiatives would need to maintain careful Medical Oversight of these activities and patient release procedures to ensure quality. We encourage advanced technologies to link Medical Control with Paramedics in the field. An example of this is the use of portable streaming video that allows the Physician to actually see the patient and the patient's injury or

disease process first hand (Silvestri). We promote any partnerships or alliances that allow patients to be treated properly and cleared in the field. Allowing carefully selected field treatment and clearance procedures with close Medical Oversight and review will reduce visits to the ED (Paratore 2006).

21. In many areas of Florida the public transports themselves or has someone else transport them to EMS or Fire Stations for emergency first aid and treatment. As we are recommending an expanded scope of practice for Paramedics (see #20), we recommend that call boxes are placed outside of every emergency services location (Fire, EMS, Police Stations etc.) to aid citizens in gaining “access”. This measure would ensure an emergency response in the scenario above, as the patient has traveled or been transported to the local EMS or Fire station for help only to discover that they are out of quarters on a dispatched emergency call. The person needing help may be experiencing sudden onset of a disease process or trauma. In these cases that Emergency Services Personnel are out of the station for whatever reason, the call box located outside of the station could be used to access to the 911 Dispatcher. The trained Dispatcher could immediately give life-saving instructions for emergency treatment and ensure another unit is dispatched to the incident with minimal delay.

The above list of recommendations is not all inclusive and is a list of recommendations only. The Access to Care Committee welcomes any and all input from any and all stakeholders and constituency groups who wish to be involved in this process on the condition that patient care is considered the highest priority.

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