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The Wichita Police Department
Special Weapons and Tactics Team
TACTICAL MEDIC PROGRAM PROPOSAL

EXECUTIVE SUMMARY: The Wichita Police Department Special Weapons and Tactics
SWAT) team in cooperation with The Wichita Fire Department, Sedgwick County Fire
Department and Sedgwick County EMS are proposing a specialized emergency tactical medical team to assist the SWAT team in completing its mission to preserve and protect the lives of citizens in the Sedgwick County area. This specialized team will promote the on-scene safety of the SWAT team and citizens
during these often complex, dangerous and potentially life-threatening situations. The team will provide emergency medical care to injured and ill patient in these dynamic tactical environments. This Team will work closely with the Medical Society of Sedgwick County, Sedgwick County EMS, and other area allied agencies to develop protocols, training programs, and quality improvement mechanisms to provide these emergency medical services. This Team will also provide technical support to the SWAT team during complex missions, assist in the development local emergency action plans, and promote the health and well being of the entire SWAT team. This Team will be periodically reviewed and evaluated by The Wichita Police Department SWAT Team, The Medical Society of
Sedgwick County, the physician medical director as well as administrative staff from The Wichita Fire Department, Sedgwick County Fire Department and Sedgwick
County Emergency Medical Services.

Developed by:
The Wichita Police Department
The Wichita Fire Department
The Sedgwick County Fire Department

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TACTICAL PARAMEDIC PROGRAM PROPOSAL

OVERVIEW

This century will clearly be filled with numerous complex and difficult challenges for law enforcement and other emergency workers. There will be many new situations that emergency service personnel will encounter and will require a variety of resources not currently available. We have seen a few examples of these incidents in Waco, Texas, Oklahoma City and more recently in Littleton, Colorado. Current trends in domestic and international terrorism, civil disturbance, drug marketing and a host of other violent situations may be only a harbinger of things to come. Local law enforcement, fire, and other emergency service leaders must immediately adequately prepare for the tomorrow's disasters within the confines of today's budgets.

An important component of this preparation is a fully functional Special Weapons And Tactics (SWAT) team. This team is currently charged with mitigating a wide variety of potentially violent situations such as snipers, hostage incidents, and high-risk warrants as well as other high-risk situations. The Wichita and Sedgwick County area is fortunate to have a SWAT team that is able to handle these complex situations. However, past experience across the nation has shown that every fully prepared SWAT team should include an emergency medical component that is an integral part of the team. This component of the SWAT team consists of on-scene resource which increase the safety and well-being of citizens, the SWAT team members, and other emergency service workers as well providing advanced life support capability in complex tactical emergencies.

HISTORICAL BACKGROUND

The creation of tactical medical teams started shortly after the Vietnam War, when law enforcement agencies began to create SWAT teams or tactical response units. Building on lessons learned from the Vietnam War about the need for onscene medical support, police agencies began assigning medical personnel to tactical teams to provide general medical support and direct support in case of shooting or other injuries. Communities soon began to learn the importance and advantages of developing more formal and sophisticated tactical medical teams to address their needs.

In 1990, The Uniformed Services University of Health Sciences created the CONTOMS (Counter Narcotics tactical Operations Medical Support) program, in an effort to provide standardized tactical training to medically qualified personnel to provide support to tactical response units. As stated by Lt. Mike White, founder and former tactical coordinator of the Tampa Fire Department's

tactical medic response team: "There are the several different reasons to have medics as a part of the SWAT team. The first is the most obvious - having medical assistance right where it is needed, in an expeditious manner, as opposed to how we used to do it, by having a unit stand by five or six blocks down the road. It's also used to decrease an agency's or city's liability."
There have been numerous incidents across the nation in which advanced life support has been delayed as a result of an on going tactical situation. The CONTOMS program meets the training needs of organizations starting a tactical medical team. Over the past few years the CONTOMS training program has flourished with numerous fully functional advanced life support capable tactical EMS programs in operation.

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CURRENT STATUS & SCOPE OF PROBLEM

The current provisions for emergency medical treatment in Wichita is fraught with problems. The Wichita Police Department relies on the Wichita Fire Department and Sedgwick County EMS to provide on-scene medical support, usually
consisting of a fire squad and an EMS unit staged at the command post. WPD training consists of very basic first-aid training or occasionally, an EMT. The training of a basic EMT is usually sufficient to recognize problems associated with traumatic injury *but is not sufficient to provide advanced life support and treatment* in complex traumatic and medically emergent situations. In addition, the equipment available to team members typically consists of a simple pressure dressing and latex gloves. There is currently no advanced medical equipment available to SWAT Team members, regardless of their level of training or certification. In addition, any advanced level of training or certification is obtained and maintained at the expense and time of the individual SWAT team officer. There are no current provisions for the Wichita Police Department to obtain or maintain any additional medical training for team members.
Across the nation, SWAT teams have encountered situations in which patient extraction was not possible due to the current tactical situation. While it is well known the delay of treatment in these situations potentially may extend patient care well into and beyond the "Golden Hour", an essential element of successful trauma resuscitation, there are no current provisions in treating trauma patients who can not be immediately extracted from these tactical environments
Legal liabilities are also important considerations for a municipality to consider. In a recent court case in California, the police department and the city were being sued on behalf of the children of one the suspects in a Los Angeles bank robbery shoot-out. The suit claimed the department failed to render medical aid to the suspect after being shot by the police. The suit alleges that Officers conspired together to allow the suspect to die rather than render medical aid to save him. SWAT medics providing early interventions may not only
have saved the man's life but also may have prevented unnecessary litigation as well.

The types of missions the SWAT team may potentially respond to is extensive. SWAT missions may even involve nuclear, biological or chemical agents. These situations include very unique hazards associated with the materials involved. The federal government is becoming increasingly concerned about the possibility of domestic terrorism. There are minimal provisions for local first responders in either mitigating such an incident or treating the victims of a potential domestic terrorism event.

Providing general medical support is essential to the well being of SWAT team members and is currently not fully addressed. In addition to providing treatment for a traumatic injury medic units need to be able to provide general medical support during both routine training times as well as potentially long and exhausting or unusual missions. In addition to medical field support of a SWAT team, tactical medics need to be involved in obtaining and maintaining a medical history database for each officer, conducting medical training for the officers, providing dietary and fitness counseling as well as providing on-scene medical evaluations of the officers during extended missions.

REVIEW OF LITERATURE

There is little research that applies directly to tactical emergency medical care. There are no focused outcome based research studies in the current literature in providing emergency care in domestic tactical environments in which extended scene time may be encountered. There are studies that do suggest

the need to establish EMS protocols, medical direction and specialized tactical medical training especially in large metropolitan areas (Jones, Reese, Kenepp, Krohmer, 1996). One important study published in 1997 by the Casualty Care Research Center, Department of Military and Emergency Medicine describes the most common type and severity of injuries encountered in tactical environment. This study, one of the only epidemiological studies of tactical emergency care, focused primarily on traumatic injuries. This early descriptive study may be useful in developing databases for future studies but is severely limited by incomplete and inconsistent reporting mechanisms. The study authors acknowledge

the study limitations and stress that further studies will require better data reporting and collection mechanisms (Gorham, Ellis, Vayer, Pruett, Hagmann 1997).

The decision to provide basic life support or advanced life support to an urban tactical medical team must be based on current research. However, an extensive literature review of providing pre-hospital life support in trauma cases is, at best, inconsistent and complicated. Numerous studies demonstrate a need for more sophisticated study design, data collection and analysis (Spaite, Criss, Valenzuela, Meislin, 1998, Steil, Wells, Sapite, Nichol, Obrein, Munley, Field, Lyver, Luinstra Dagone, Campeau, Ward and Anderson, 1999, and Mann, Mullins,

MacKenzie, Jurkovich, 1999). There are other studies that demonstrate beneficial results utilizing pre-hospital advanced life support while many other

studies have shown little value in providing ALS. Some studies have demonstrated
little or no known benefit in providing advanced life support in pre-hospital trauma life support (Sampalis, Lavoie, Salas, Nikolisand Williams, 1994, Cayten, Murphy and Stahl, 1993 and Sampalis, Boukas, Lavoie, Nikolis, Frechette, Brown,
Fliezer and Mulder, 1995). These studies were generally based on that scene times are increased with the use of advanced life support and that increased scene times are associated with poor survival rates. Other studies have demonstrated a favorable effect on the utilization of advanced life support (Perez-Diaz, Valera, Moreira; 1995, Hu, Kao; 1996; Bradley, Bissel, Eslinger and Zimmerman, 1998).
It may be useful to reference studies that demonstrate the impact of advanced life support in situations in which long transport times are encountered such as in rural areas. These studies may be useful, as there may be a similar effect with definitive treatment delays in tactical situations. These studies demonstrate beneficial effects of providing advanced life support in cases of rural trauma in which extended delays in reaching trauma centers is common. Two
particular studies demonstrated that advanced life support in a rural trauma improved survival (Kearney, Stallones, Swartz, Barker and Johnson, 1990; Svenson, Spurlock and Nypaver, 1996). While there is some contradiction in the current literature, it is generally accepted that only IV's and airway management techniques are appropriate in pre-hospital trauma situations and only
when they can be done rapidly or en-route to a trauma center where definitive measures can be taken.

PROGRAM GOALS

1.) The primary goal of the tactical medic program is to enhance scene safety. This will be accomplished by having on-scene medical personnel to provide consultation and support to the SWAT team in a wide variety of situations that may be detrimental to the health and well being of the SWAT team members and citizens. The tactical medics will utilize a number of resources available to them including direct contact with the medical advisor, contact with area emergency department physicians, Sedgwick County EMS and other valuable resources to achieve these goals.

2.) The tactical medic team will provide rapid and potentially life saving interventions to SWAT team, citizens and suspects who have been in injured during situations that have necessitated the use of the SWAT team. An important goal of the tactical medic program is to extend medical personnel into situations to provide basic and advanced life support where it currently is not available. The intent of this objective is to improve survival by providing early treatment and supporting rapid extraction to severely inured people in a variety of tactical situations. The medics will maintain close contact with the on-scene physician if available or through direct radio contact with the medical

adviser or emergency department physician if necessary during these incidents.
3.) The tactical medic program personnel will provide medical support to the SWAT team in situations that may require support due to adverse weather, terrain, location or other potentially dangerous environmental or situational factors. Examples of such conditions include extremes of temperatures, large wooden or open terrain, large or complex structures, and the presence of other significant hazards.
4.) The tactical medics will provide emergency medical support during tactical incidents that involve various hazardous chemicals. It is anticipated that in the future, this Team will become involved in domestic terrorism preparation for incidents that may potentially involve nuclear, biological, chemical and other explosive agents. This Team will begin to formulate a local action plan in coordination with state and federal plans.
5.) The tactical medic team will act as a resource to the Incident Commander by providing technical support to the SWAT team in a variety of non-medical functions. These may include building design and construction, handling of utilities such as electrical, gas, cable and phone, and other potentially hazardous conditions.
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6.) The tactical medic program will construct and maintain a complete health database on all SWAT team members that is consistent with the National Tactical
Officers Association guidelines and recommendations.
7.) The tactical medic program will maintain a complete record of its training and mission activities. The records will be formulated in a manner that will allow a comprehensive analysis of its activities so that appropriate recommendations can be made for future activity by the Wichita Police Department
and the Medical Society of Sedgwick County (MSSC).

The decision to arm tactical medics with firearms is an important and controversial issue that other communities have struggled with. There are many advantages and disadvantages to each position. The necessary training to adequately prepare personnel to carry and use firearms is both costly and very time consuming but may increase team efficiency while optimizing personal protection for SWAT medics. Communities with SWAT paramedics have utilized both
armed and unarmed medics depending on their local needs. The Wichita Police Department will defensively train and arm tactical medics in order that these medics may adequately defend themselves in potentially hostile environments.

REOUIRED RESOURCES

The resources required to begin a tactical medic program initially seemed quite formidable but after close review of our needs and current resources, the requirements are really quite modest. Utilization of existing resources and molding them into a functional tactical medical team is the most appropriate means to accomplish this objective. Enclosed is a list of resources, some of

which need to be allocated immediately while others may be able to be addressed
as budgets allow.
1.) **Personnel** The most expensive piece of this plan is personnel expenditures. Utilizing existing on-duty firefighter medics will minimize personnel expenditures. To maintain 24-hour coverage of a two to four person tactical medic team, we will initially train 8 tactical medics. In this configuration, we could provide a rapid response to any tactical situation in Wichita or Sedgwick County and immediately attach at least two 2-man tactical medic teams to an operating SWAT team. In addition, this personnel pool could provide another 2-4 tactical medic teams on a standby or on-call basis.
An appropriate application process to the tactical medic team will be implemented and will consist of:
A. Minimum eligibility:
1.) Applicant must have minimum of 2 years experience with an EMS agency or associated EMS agency
2.) Applicant must possess current ENUCT certification
B. Written application and written emergency medical proficiency testing
C. Supervisor recommendation D. Background investigation
E. Physical fitness evaluation: resting heart rate, recovery heart rate, flexibility, 1.5 mile run in less than 14 minutes as well as maximum sit-ups in one minute, maximum push ups, maximum chin ups.
F. Oral interview board
G. Psychological evaluation
H. Unit appraisal and selection
I. Approval of each tactical medic by the Medical Society of Sedgwick County
J. Commander confirmation
Selection of personnel will be selected on a composite score developed from these evaluation criteria.
2) Medical Authorization, Standing Orders/Protocols, Medical Direction - Proper authorization to utilize tactical medics will be obtained from the Medical Society of Sedgwick County (MSSC). The MSSC Trauma Subcommittee is a key component to the protocol design and development as well as general oversight in
this Team. The utilization of existing standing orders and protocols utilized by Sedgwick County EMS are familiar to all and will most likely suffice in most tactical situations. These same protocols will be modified for tactical medic

use. The MSSC Trauma Subcommittee will review and approve all tactical medic unit protocols. A tactical medic manual addressing tactical as well as medical issues will be developed.
3) Equipment - A variety of new equipment needs to be obtained for use by the tactical medics. The equipment required for the tactical medics is generally defined as safety, communications, or medical equipment. Some of the safety equipment required can be obtained free through the Federal Government's Defense

Reutilization Management Office (DRMO) reclamation program. The DRMO issues surplus military equipment free to police departments across the nation for use in precisely this type of operations. Helmets gas masks; goggles as well as other numerous items may be obtained from DRMO. The Wichita Police Department will be meeting with DRMO officials in January 2000 to obtain some of the available equipment.

Communications equipment will be a large part of the equipment needs. The tactical medics will require pagers; radios and headsets make up the bulk of essential communications equipment. Each member of the tactical medic team will require a pager.

The current 800 MHz radios each department issues and currently has assigned to SWAT will not suffice in the numbers of these radios. Additional radios will need to be purchased. Radio headsets for use in tactical responses will also need to be purchased. (See attached budget addendum)

Medical equipment may account for a large portion of the initial start up cost. However, due to the scope and nature of tactical EMS, there is only a need for some very basic equipment. Expensive, but generally durable medical equipment such as ECG monitor/defibrillators or AED, Laryngoscopes, auctioning equipment and other basic items will need to be purchased initially. This equipment has average life of 3-5 years depending on the use and care of such equipment and plans for periodic replacement and servicing must be made (See attached budget addendum). Every effort to purchase equipment within the existing EMS system budget will be made to avoid the use of unfamiliar equipment and to maximize existing purchasing mechanisms.

Disposable medical supplies such as bag valve masks, dressings, ET tubes, IV solutions, needles or any medications carried may be able to be replaced by EMS in a trade out agreement with them at little or no expense. Furthermore, a trade out agreement with EMS is important because many of these supplies have expiration dates and will need to be traded to busier EMS units where they can be used well before their expiration dates.

TRAINING

Adequate training of the tactical medics is an important issue to ensure a successful program. Training will consist of an initial training program and an ongoing training program that is currently in place with the WPD SWAT team. An initial training program consisting of a minimum of 100 hours is anticipated.

The initial training program for the tactical medics would ideally consist of sending each tactical medic to an official CONTOMS school at one of their regional training centers. This may be an expensive option at about $1500.00 for each medic sent.

Another alternative is to send the tactical medics to a private training class offered by companies such as Heckler and Koch. The price of this training would be around $4000.00 per medic. A more feasible option would be to utilize existing area resources. This would include utilizing the WPD SWAT team instructors as well as area physicians willing to participate in this program Dr. Ernest McClellan, Dr. Wes Helena, and Dr. Chris Good have all expressed interest in supporting the tactical medic program and will be invaluable in the initial and ongoing training. Drs. Helena and Good have both attended seminars in tactical EMS. Dr. Chris Good has attended the COEMS (Operational Emergency
Medical Skills Course) a part of the Casualty Care Research Center which is in the same office as CONTOMS. This course provided by the Division of Military and
Emergency Medicine, Uniformed Services University for Health Sciences in Bethesda, Maryland. Dr. Good's training in this area will provide the local tactical medical team with extensive tactical/medical training.
The basic training SWAT team tactical medics must complete before being utilized
consists primarily of medical and tactical topics. The tactical training will be provided by the Wichita Police SWAT unit and the medical training will be from combined resources including Fire Department staff, local agencies and physicians.

A. Initial Medical Training

The Tactical medical team will utilize the American College of Surgeons Prehospital Trauma Life Support curriculum and certification as the foundation for emergency medical training. This two-day course, offered to the TEMSU by Via
Christi Medical Center, provides basic education in prehospital trauma care. The class will be conducted for the TEMSU members on January 21 and 22, 2000. In addition to the PHTLS curriculum, the tactical medics will receive additional emergency medical training and be able to demonstrate proficiency in the following areas:

1.) Rapid physical assessment, treatment and extraction in tactical environments
2.) Advanced airway management techniques
3.) Assessment of environmental factors
4.) Basic management of psychiatric emergencies
5.) Ballistics and wound care management
6.) Toxicology
7.) Hazardous Materials
8.) Basic knowledge of weapons involved in potential domestic terrorism

A variety of educational resources will be utilized to present this material.
The PHTLS curriculum and Tactical Emergency Medical Care will be used in the basic education of the tactical medics.
Evaluation of the medic's performance will be documented on both written and hands on skills. The tactical medical director or MSSC designate will

individually evaluate the skills of each medic. Each tactical medic will be expected to:
1.) Demonstrate the ability to conduct rapid patient assessments, provide essential emergency medical interventions and perform rapid patient extraction in a variety of tactical scenario based training situations.
2.) Demonstrate ability to perform advanced airway and IV management skills
3.) Pass written examination on materials presented with a minimum score of 80%.
This will include PHTLS, SCEMS proficiency testing as well as other tests developed by the tactical medic medical director.
4.) Perform at least 10 successful endotracheal intubations

5.) Perform at least 20 successful intravenous starts
B. Continuing Medical Education and Training
Each member of the tactical medical team will be required to attend continuing education programs directed to maintain proficiency of skills. This will include the following:
1.) The tactical medical team will meet every third Wednesday for an 8-hour training session (12 sessions per year). The training during these sessions will include topics from both law enforcement and emergency medical disciplines.
2.) Successful periodic evaluations from the tactical medical director or MSSC designate on each tactical medics proficiency. This will include both written and direct observation evaluations. The medical director will have the responsibility to periodically certify the medic's ability and will have the responsibility to remove a medic from the team at any time for failure to meet minimum standards.
3.) Each TEMSU member will be expected to perform at least 1O endotracheal intubations, LMA or other approved airway under the direct observation of the TEMSU medical director or the MSSC designate.
4.) Each TEMSU member will perform at least 1O intravenous starts per year under
the direct observation of the TEMSU medical director or his designate.
C. Tactical Training
Basic tactical orientation is an essential component of tactical medical training to ensure optimal team proficiency. Furthermore, this basic tactical training is essential to the safety and well being of our tactical medics. This will consist of a four-day course and will include:
Day One
A. History of SWAT
B. SWAT statistics
C. WPD SWAT Policies
D. Team Structure
E. SWAT capabilities
F. Handgun familiarization
Day Two
A. Call out sequence

B. Command and control
C. Communications
D. Intelligence
E. Structure identification
F. Team deployment and perimeter discipline
G. Mission tactics (stealth, dynamics, gas insertion, etc.)
H. Post mission debriefing
I. Bennelli shotgun familiarization
Day Three
A. Silent communication
B. Individual and team movements (rural urban, building search)
C. Immediate action drills (CQB, OAB)
D. Officer down extraction drills
E. MP-5 familiarization

Day Four
A. Gas and Gas mask
B. Distraction device
C. Rappelling (familiarization)
D. AR-15/M-16 familiarization
Completion of this class work is considered to be a minimal requirement to ensure tactical medics understand the complexities of tactical situations and will be required prior to any response by tactical medics. Additional continuing firearm training and appropriate law enforcement training will be provided by the Wichita Police Department SWAT team.

STRUCTURE AND FUNCTION

The structure of the team will consist of two firefighter/medics assigned to a 24-hour shift. It is anticipated that we will have two 2-person teams on duty at all times. Additional off-duty medics will be equipped with pagers and will be called back as needed.

The tactical medics will be paged out as part of any typical SWAT team response.

These medics will be attached directly to a seven- man SWAT team and will report
directly to the SWAT team supervisor for the duration of the incident. The SWAT team supervisor will direct the activities of these tactical paramedics and will be responsible for their immediate safety. IT MUST BE STRESSED THAT TACTICAL
MEDICS ARE AN INTEGRAL PART OF A TACTICAL SWAT TEAM AND AS SUCH ARE UNDER THE
SUPERVISION OF THE SWAT INCIDENT COMMANDER AND WILL REPORT TO THE SWAT TEAM
LEADER TO WHICH THEY ARE ASSIGNED. After receiving notification of a SWAT
mission the on-duty tactical medics will respond directly to the incident location and report to the SWAT team leader.

The tactical medics will provide emergency medical services in accordance with local emergency medical standards. Authorization of activities, protocols and procedures must be approved by the Medical Society of Sedgwick County. The protocols utilized by the tactical medics will be the latest protocols approved by the Medical Society of Sedgwick County and the tactical EMS unit protocol addendum. These protocols address all of the essential needs of a tactical medic program. If problems or concerns arise at the scene, direct physician involvement will be available through the medical director through direct radio communication, direct communication with the on-scene physician, or contact with
the receiving facility emergency department physician. Each incident will be fully documented and reviewed retrospectively.

PROTOCOLS

Wichita-Sedgwick County Tactical Emergency Medical Support Unit

These protocols are intended as an addendum to the "Sedgwick County Type II Emergency Medical Service Protocols" approved by the medical Society of Sedgwick
County (MSSC), to address medical care to be provided by the Tactical Emergency
medical Support Unit (TEMSU). The TEMSU is a specially trained group of emergency medical personnel from Sedgwick County Fire District #1 (SCFD) and the
Wichita Fire Department (WFD) that will respond with the Wichita Police Department (WPD) Special Weapons and Tactics (SWAT) team and will coordinate
activities with SCEMS. These protocols are specific to this team and are not to be used in other situations outside deployment if this specific team.

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The primary purpose of this team is to support the SWAT team by providing appropriate medical care in the tactical situation where traditional EMS operations cannot be utilized. While it is widely recognized the main goal of any EMS system is to provide timely treatment and transport, in tactical situations, rapid transport is not always possible. Situations such as hostages, barricaded subjects and snipers can prevent the rapid extraction and transport of both trauma and medical patients. It is the goal of the TEMSU to bring advanced medical care to patients when extraction to traditional EMS care is not always immediately possible.

1.) To become a member of the TEMSU, the candidate must:

(a) hold a minimum Kansas certification as an EMICT with 2 years experience

(b) be selected by a committee appointed by WPD to evaluate candidates for this team according to any and all law enforcement requirements

(c) be approved by a committee appointed by the MSSC to ensure adequate medical expertise

(d) meet specific requirements of the SWAT team

(e) be willing to take and pass evaluations including emergency medical

knowledge and skills, physical and psychological testing.
2.) While on deployment of the TEMSU, the members of the unit are under the tactical command and control of the WPD Tactical Supervisor on the scene. TEMSU
members may act as advisors to the WPD Tactical Supervisor.
3.) Medical care not covered in these protocols needs to be approved by radio contact with the Tactical Medical Advisor or according to the Sedgwick County Type II Emergency Medical Service protocols approved by the MSSC. In situations
where radio contact is not possible, or when silence must be maintained as part of the mission, TEMSU members may perform procedures authorized for an EMICT
when necessary to save life or limb.
4.) Anticipated specific treatments:

TRAUMA

a. Airway - airway maneuvers up to and including endotracheal intubation, LMA and Combitube. The technician must show proficiency in the use of endotracheal intubation, LMA and the use of Combitube prior to being authorized to use these airways in the field. Open neck or chest wounds should be covered with an occlusive dressing.
b. Cervical Immobilization per standard pre-hospital practices for rapid extrication. In some situations the tactical environment may require the technician to evacuate a patient without benefit of complete spinal immobilization. In such situations, movements should be such as to decrease further injury (i.e. axial movements, use of SKED board).
c. Intravenous Access - Technicians will be authorized to start peripheral including external jugular vein IV access in tactical situation in which the IV is indicated AND the situation does not allow for rapid extrication. IV normal saline (or current MSSC approved fluids) will be administered to keep a systolic blood pressure around 80 mmhg or enough to preserve central nervous system functions. DO NOT ATTEMPT TO REGAIN NORMOTENSIVE BLOOD PRESSURES.
d. The TEMSU will utilize the existing Immediate Transport Protocol (ITP) in all situations that allow the immediate extraction and transport of the trauma patient.

MEDICAL EMERGENCIES

a. **Chest Pain (Non traumatic Chest pain or Discomfort of Suspected Cardiac**
Origin)- IF UNABLE TO IMMEDIATELY TRANSPORT

1. Assess ABC'S, ensure airway, and administer high flow 02
2. Administer NTG 0.4 mg S.L, if B/P> 100 mm Hg. Systolic (Excluding Peds). Repeat every 5 minutes X 2 (3 doses total).
3. Administer ASA 5 gr PO chew and swallow
4. IV @TKO
5. Recontact physician advisor for further orders.

b. **Respiratory Emergencies- IF UNABLE TO IMMEDIATELY TRANSPORT**
1. Maintain airway using oral airway, or ET (with C02) detector as required).
2. If foreign body of the airway is present, use standard AHA methods of removal including visualization and removal with forceps as indicated.
3. For those patients known to have obstructed pulmonary disease and/or asthma patients with respiratory distress administer 2.5 mg Albuterol Sulfate via nebulizer with 6 L/mask one time.
c. **Diabetic Emergencies - IF UNABLE TO IMMEDIATELY TRANSPORT**
1. Assess ABC' s, level of consciousness, oxygen as needed
2. If alert give oral Instaglucose gel/paste 31 gms PO
3. If V or P on AVPU Scale give:
50ml of 50% Dextrose if 12 years or older
2ml/kg of 25% Dextrose if less than 12
To prepare D25 discard 25 ml and replace with LR to a 50-ml total
Do not give more than 50 ml of solution at one time. For additional Doses, contact medical advisor.
Any other medical emergency requiring additional interventions will require direct orders from the physician medical director. The TEMSU will carry the following medications
1. Nitroglycerin (SL)
2. Sodium Bicarbonate
3. Epinephrine 1: 1,000
4. Atropine
5. Lidocaine
6. Albuterol
7. Benadryl (PO and Parenteral)
8. ASA
9. Narcan
(Note: OTC medications including ASA, Ibuprofen, Acetominophen, Antacids, Kaopecate,
Bacitracin, Calamine, Dextromethorophan, Benadryl, and Pseudoephedrine and will be carried for Team use only and only for self-administration. These medications may be needed during extended or remote operations.)
5. Patient Assessment: In the tactical situation, the initial survey may need to be modified. Initial assessment of ABC'S may be delayed until a weapons assessment has been performed. At any stage, extraction of the victim from further harm may take precedence over secondary assessment.
6. Triage: Triage rules will follow guidelines as outlined in the Type II Medical Protocols approved by the MSSC. In a tactical environment triage guidelines may need to modified according to the tactical environment that is present. In a tactical environment the following guidelines shall be utilized.

a. The primary role and responsibility of the TEMSU is to support the SWAT Team's mission and enhance scene safety. Personal safety depends on the Tactical Unit's ability to work as a team. The Unit's team integrity

preserves not only the safety and security of the Unit but also provides for the safety and security of other injured patients and potential patients. Triage decisions should be based on the collective needs of the situation and provides for the SWAT team the ability to successfully complete their mission.
b. All suspects must be searched and secured prior to treatment for the safety of team members.
c. It is frequently difficult to differentiate innocent victims from suspects. Frequently, innocents must be searched and secured just as suspects to ensure they are not a threat.
d. All activities of SWAT operation are dictated by the law enforcement commander. Once threats are eliminated and the law enforcement commander determines the scene is secure, the victims can then be secured and turned over to transporting personnel.
7.) Medical Quality Assurance: Due to the special circumstances surrounding tactical medical care, a written form will be completed for each response and each patient cared for. The tactical medical advisor and the MSSC Trauma Subcommittee and/or their designate will evaluate this form and the response. This form will include the following:
a. A detailed description of the incident including response personnel, situation found and emergency medical care provided.
b. A check list documenting protocol compliance. Included in this section will be analysis of quality assurance indicators. 4 primary quality assurance indicator will be to accurately document scene times and efforts to decrease on scene times with trauma patients.
c. An incident summary including activities at improving tactical emergency medical services.
Periodic review by the tactical medical advisor and the team will be performed to evaluate and improve procedures. In addition, a medical threat assessment form will be completed and filed for each response as soon as possible following each TEMSU activation. Following each response, a casualty report form will be completed and filed with the SWAT Team commander. A copy will be mailed to the
Casualty Care Research Center (CCRC) in Bethesda, MD.
Protocols reviewed and approved by:

_____
_____
SWAT Team Commander Date TEMSU Medical Director Date

IMPLEMENTATION

Implementation of a tactical medic team will consist of the following steps:
1.) Securing the necessary approval from departmental directors and the Medical Society of Sedgwick County and Medical Director to utilize paramedics by the WPD
SWAT team during tactical incidents.
2.) Obtaining funding required for the necessary equipment and training time for personnel involved.

3.) Conduct an application process and determine personnel that will be involved in the tactical medic program.
4.) Develop a training program that will address both tactical and medical topics
5.) Conduct medical knowledge and skills proficiency testing of personnel. The material to be tested on will be the Type I and Type II EMS protocols for Sedgwick County, Prehospital Trauma Life Support Textbook 4th edition, Tactical Emergency Care, 1st edition and other appropriate materials.
6.) Develop a health database for all personnel involved in SWAT team functions.

EVALUATION

The tactical medic program will be evaluated by utilizing both the predetermined implementation objectives as well as field performance. The SWAT team commander
and TEMSU medical director will conduct field performance evaluation. These supervisory personnel will evaluate the initial implementation objectives and field performance at three and six month after initial start up as well as one year after implementation of the program.

TACTICAL MEDIC BUDGET ESTIMATE

The following is an estimate of the major expenses for the implementation of a tactical medical team. These figures represent only an estimate of the expenses involved and do not reflect a complete list of disposable or dispensable supplies that may be traded out with EMS. Furthermore, these items are estimates
and the total cost of the program may be decreased through the DRMO program or
other local or donated resources.

Training

1) Initial training time for 8 medics (100 hours each @ $16.00 hour) $12800.00
2) Instructor/Consultation Fees $3000.00
Training Subtotal $15800.00

Medical Equipment

1) Monitor/Defibrillator or AED (or suitable equivalent) $10000.00
2) Intubation equipment (Laryngoscope, blades, etc.) $500.00
3) Equipment/ Medication kits $400.00
4) Nelleor Pulse Oximeter $1095.00
5) Therinoscan Thermometer $199.95
6.) Laerdal Compact Suction $525.00

The emergency medical equipment carried by the tactical medics is primarily limited to two small kits containing only the most basic supplies. One kit contains airway equipment and the other kit contains basic trauma management supplies such as trauma dressings and IV fluids. These kits can be configured effectively in order to make the most of limited storage area and provide the best utilization of equipment. Some communities have opted to utilize a third kit arranged in a backpack configuration and are intended for extended or remote operations.

These kits will contain the following supplies:
1.) **Airway Kit** - Airway equipment including oral airways, BVK laryngoscope, ET tubes, compact 02 bottle, 02 masks, compact suction unit.
2.) **Trauma Kit** - Assortment of trauma dressings, IV start kits, 2- 1000 cc LR
3.) **Extended Operations Kit** - The third optional kit can contain equipment necessary for extended or remote operations. This kit would include compact EKG
monitor or AED, pulse oximeter, thermometer and medications including:
a. Nitroglycerin
b. Sodium Bicarbonate
c. Epinephrine
d. Atropine
e. Lidocaine
f. Albuterol
g. Benadryl
h. ASA
i. Narcan

Equipment Subtotal ~$12719.95

Projected Tactical Equipment Budget

Gas mask, carrier, one extra filters 8@ 156.01 1248.08
Nomex Balaclava 8@ 22.95 183.60
Nomex Gloves 8@ 29.95 239.60
Medical Load Bearing Vest 8@ 139.95 1119.60
Medical Back Pack 8@ l59.95 1279.60
Gore-Tex ECWS System 8@ 379.75 3038.08
Rocky Boots 8@ 1OO.00 800.00
Canteen (two quart) 8@ 25.00 200.00
Entry Vest 8@ 1600.00 12800.00
Eagle Radio Headsets 8@ 400.00 3200.00
Radio 8@ 2200.00 17600.00
Web Belt 8@ 20.00 160.00
Medical Drop Pouches 8@ 29.99 270.00
BoUe Goggles 8@ 29.88 239.04
Helmets 8@ 245.85 1966.80
Uniforms 8@ 86.00 688.00
Sub-Total 45032.40
Tax, Shipping and handling on orders (estimated 10%) 4503.24
Total 49535.64

Total Initial Expenses ~$78055.59

Estimated Continuing Yearly Expenses

Training

1) On going training time for 8 medics 96 hours per year @ $16.00/hr $12288.00
2) Instructor/Consultation fees $ 2000.00

Operations

Personnel costs

(Estimated 50 missions per year, 2 medics @ 4 hours each @ $16.00 hour)$6400.00

Equipment

1.) Miscellaneous equipment replacement per year $2000.00

Total - ~$22,688.00

DRAFT 3/10/00 16

BIBLIOGRAPHY

Beasley D.M., and Glass, W.I. (1998). Cyanide Poisoning: Pathophysiology and Treatment Recommendations. Occupational Medicine (London), 48, (7):427-31.

Bissell, R.A; Eslinger, D.G; Zimmerman, L. (1998). The efficacy of advanced life support: A review of the literature. Prehospital Disaster Medicine, 13,(1):77-87.

Cayten, C.G; Murphy, J.G; StahL W.M; Basic life support versus advanced life support for injured patients with an injury severity score of 10 or more. Journal of Trauma, 35,(3): 460-6

Esposito, T.J; Sandal, N.D; Hansen, J.D; Reynolds, S. (1995). Analysis of preventable trauma deaths and inappropriate trauma care in a rural state. Journal of Trauma, 39, (5), 955-62.

Gorham J; Vayer, J; Pruett, R; Hagmann, J, H; (1997). Epidemiology of SWAT injuries: Implications for Tactical EMS Providers. Prehospital Emergency Care, 1,(3):49-55.

Holstege, C.P; Kirk, M; Sidell F.R. (1997). Chemical warfare: Nerve agent poisoning. Critical Care Clinic., 13, (4):923-42.

Hu, S.C; Kao, W.F; (1996). Outcomes in severely ill patients transported without prehospital ALS. American Journal of Emergency Medicine 14,(1):86-8.

Jones, J.S; Reese, K; Kenepp, G; Krohmer, J. (1996). Into the fray: integration of emergency medical services and special weapons and tactics (SWAT) teams. Prehospital Disaster Medicine, 11, (3): 202-6.

Kearney, P.A; Stallones, L; Swartz, C; Barker, D.F; Johnson, S.B. (I 990). Unintentional injury death rates in rural Appalachia. Journal of Trauma, 30,(12):1524-32.

Lorenzo, R. A and Porter, R. S. (1998). Tactical Emergency Care. Brady Publishing. Prentice-Hall. Upper Saddle River NJ.

Mann, N.C; Mullins, R.J; MacKenzie, E.J; Jurkovich, G,J; Mock, C.N. (1999). Systematic review of published evidence regarding trauma system effectiveness..
Journal of Trauma, 47, (3), s25-33.

McNicholl, B.P. (1994). The golden hour and prehospital trauma care. Injury, 25,(4): 251-4.

Quintans-Rodriquez, A; Turegano-Fuentes, F; Hernandez-Granados, P; Perez-Diaz,
M; Fuenmayor-Valera, M.L; Fernandez-Moreira, C.. (1995). Survival after prehospital advanced life support in severe trauma. European Journal of Medicine, 2, (4):224-6.

Sampalis, J.S; Boukas, S; Lavoie, A; Nikolis, A; Frechette, P; Brown, R; Fleiszer, D; Mulder, D. (1995). Preventable death evaluation of the

appropriateness of the on-site trauma care provided by Urgences-Santes physicians. Journal of Trauma, 39,(6): 1029- 35.

Sampalis, J.S; Lavoie, A; Salas, M; Nikolis, A; Williams, J.I. (1994). Detrimants of on-scene time in injured patients treated by physicians at the site. Prehospital Disaster Medicine, 9,(3):178-88.
Solberg, Y; Nachtomi-Shick, 0; Shemer, Y; Alcay, M. (1998). Terror in Japan: Mass intoxication with the nerve agent sarin. Harefuah, 135,(7-8): 268-71, 336.
Spaite, D.W; Criss, E.A; Valenzuela, T.D; Meislin, H.W. (1998). Prehospital advanced life support for major trauma; critical need for clinical trials. Annals of Emergency Medicine, 32(4):480-9.
Stiell, 1.6; Wells, G.A; Spaite, D.W; Nichol, G; O'Brien, B; Munkley, D.P; Field, B.J; Lyver, M.B; Luinstra, L.G; Dagone, E; Campeau, T; Ward, R; Anderson,
S. (1999). The Ontario Prehospital Advanced Life Support (OPALS) study Part II: Rationale and methodology for trauma and respiratory distress patients. Annals of Emergencv Medicine, 34, (2):256-62.
Svenson, J.E; Spurlock, C; Nypaver, M. (1996). Factors associated with the higher traumatic death rate among rural children. Annals of Emergency Medicine, 27, (2):625- 32.
Yen, D; Tsai J; Wang, L.M; Kao, W.F; Hu, S.C; Lee, C,H; Deng, J.F; (1995). The clinical experience of cyanide poisoning. American Journal of Emergency Medicine, 13,(5):524-8.

GUIDELINES FOR PATIENT ASSESSMENT

CODE WHITE
Patient requires basic emergency care
Vital signs within normal limits (WNL)
Closed simple fractures, simple lacerations, simple illness
Patient is alert and oriented
Patients involved in 10 - 48 and want to be checked
Postictal seizures without complications
Patient who is stable and is anticipated to remain stable

CODE GRAY
Patient requires MICT evaluation
IV and ECG monitoring has been indicated
V or above on AVPU scale
Potentially serious or uncertain status
Cardiac with chest pain
Open fractures, multiple fractures, femur or pelvic fractures not associated with shock
Overdoses with stable vital signs
Known respiratory disease patient with dyspnea
Lacerations with potentially significant blood loss
Possible internal bleeding
Head injury with questionable neuro deficit
Stroke patients with stable vital signs

OB patients with impending delivery or field delivery without anticipated complications
Diabetic with LOC of V or above
Other medical emergencies with anticipated alterations in vital signs
Total or partial amputation at or above the wrist or ankle
Demonstrated compromise of blood flow to an extremity
Numbness, paresthesia or loss of function of one or more extremities
Burns < 10% third degree or < 30% second degree
Patients involved in rollover accidents are considered code gray.
CODE RED
Advanced life support required
Unstable vital signs
LOC of P or U on AVPU scale
Cardiac with potentially hazardous dysrhythmias or cardiogenic shock
2nd and/or 3rd degree burn of 30% or greater total body surface (TBS)
Airway/respiratory difficulties associated with burns
Electrical burns where 440 volts or greater were suspected
OB with complications
Newborn with APGAR score of 7 or less
Head injuries with significant neuro deficit
Significant chest injury and multiple systems trauma requiring immediate stabilization
Unstable overdose
Deteriorating stroke patient
Probable internal bleeding with abnormal vital signs
Shock present or impending (any type)
Deep penetrating trauma to cranium, trunk or cervical area
CODEBLUE
Cardiac or Respiratory Arrests
Code Blue Trauma Alerts
CODE YELLOW
1. Obviously dead
a. Decapitation
b. Massive crushing injury such as severe crushing injury to the head, chest or abdomen or avulsion of heat, lung or brain without vital signs
c. Incineration
d. Decomposition
e. Rigor mortis
½
f. Postmortem lividity
g. D.N.R. order
Patients with any of the above conditions will not have resuscitation initiated.
2. Absent reflexes, respirations, and cardiac activity (in the absence of hypothermia)
a. Prolonged field resuscitation with persistent asystole (documented 20 minutes by fire rescue and EMS or on-scene health care workers).

b. Blunt trauma patient without vitals on arrival
C. Penetrating trauma to the head without vital signs
These situations may have resuscitative efforts discontinued by the EMS Medical Director, if available, or the hospital Emergency Room Physician, in accordance with the current hospital transport destination protocols after detailed description of physical finds and circumstances surrounding the incident. The EMS Medical Director, if available, or the hospital Emergency Room Physician, in accordance with the current hospital transport destination protocols does not pronounce death, only determines that further resuscitation in not indicated. The case is then handled as any other out-of-hospital death.
CODE GREEN
Patients demonstrate unusual, bizarre or socially aberrant action, ideas, or moods and represent a threat to themselves or others.
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