Appleton Ambulance EMS Guidelines

Patient Care Guidelines

Last updated 6/28/24

Version 2024 v3

(119 pages)

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Guideline Number – 1000.00

General Administrative Guidelines

Guideline Number – 1025.00 rev. 10/17/08

ADOPTION STATEMENT

The goal of prehospital emergency medical services is to deliver a viable patient to appropriate definitive care as soon as possible. Optimal prehospital care results from a combination of careful patient assessment, essential prehospital emergency medical services and appropriate medical consultation.

These BLS Patient Care Guidelines were developed to standardize the emergency patient care that EMS providers, through medical consultation, deliver at the scene of illness or injury and while transporting the patient to the closest appropriate hospital. These guidelines will help EMS providers anticipate and be better prepared to give the emergency patient care ordered during the medical consultation.

As Medical Director for Appleton Ambulance Service, I approve and adopt these guidelines for use in all patient care encounters.

_____ _____

Medical Director **Date**

_____ _____

Service Director **Date**

General Administration Guideline
Guideline Number – 1050.00 rev. 10/17/08

Roles and Responsibilities of the Medical Director

Definition:
The Medical Director is a physician who accepts responsibility for the quality of care provided by drivers and attendants of a Basic Life Support transportation service that has been granted a variance to perform a restricted treatment of procedure.

Requirements:
Pursuant to Minnesota Statute 144E.265 Subd. 1.
The Medical Director must meet the following requirements:

(1) be currently licensed as a physician in this state;

(2) have experience in, and knowledge of, emergency care of acutely ill or traumatized patients; and

(3) be familiar with the design and operation of local, regional, and state emergency medical service systems.

Roles and Responsibilities:
Pursuant to Minnesota Statute 144E.265 Subd. 2.
The Medical Director responsibilities include but are not limited to:

A. Approving standards for training and orientation of personnel that impact patient care.

B. Approving standards for purchasing equipment and supplies that impact patient care.

C. Establishing standing orders for prehospital care.

D. Approving written triage, treatment, and transportation guidelines for adult and pediatric patients.

E. Participating in the development and operation of continuous quality improvement programs including, but not limited to, case review and resolution of patient complaints.

F. Establishing procedures for the administration of drugs.

G. Maintaining the quality of care according to the standards and procedures established under clauses A through F.

Annual Assessment of EMTs:
Pursuant to Minnesota Statute144E.265 Subd. 3. Annually, the medical director or the medical director's designee shall assess the practical skills of each person on the ambulance service roster and sign a statement verifying the proficiency of each person.

Guideline Number – 1070.00 rev. 06/25/24

Membership on Appleton Ambulance Service

Appleton Ambulance Service (AAS) will be made up of EMTs, EMRs, RNs, and EMT-paramedics. Each member will be listed on the official AAS roster. Full membership is given to those who participate in the service by taking call on a routine basis.

Associate membership will be granted to EMTs, RNs, EMRs, or EMT-Ps at the discretion of the ambulance administrator. Associate members will have no expectation of call time requirements.

Each full member of the AAS shall be responsible for weekend call on a proportional basis. Weekend call is defined as the group of four shifts from Friday night 7p until Sunday night at 7p.

Weekend call can be self-scheduled by full members in advance. To allow for fair and equal responsibility for weekend call, each full member shall self-schedule for the month ahead before each monthly ambulance meeting.

If a person does not self-schedule for a weekend by the monthly ambulance meeting, the administrator will assign unscheduled members to open weekends for the month upcoming.

The assigned member shall have first opportunity and last responsibility to fulfill the requirements of being on call for the assigned weekend. If the member is unable to fulfill the requirements, the administrator may, as their discretion, fill the shift with other members.

If a full member is unable to fulfill the weekend requirement their membership in AAS may be suspended, at the discretion of the administrator.

Guideline Number – 1075.00 rev. 1/14/24

Service Responsibilities

Calls For Service

1. Each member shall respond to all calls for service during the shifts that they have volunteered and been scheduled for. While on call, each member shall wear or have within hearing distance a radio/pager provided by the service.

2. No member of the Appleton Ambulance service shall engage in the usage of alcohol or drugs, other than prescription drugs, that will not interfere with the member's performance, for at least eight hours prior to a call shift.

3. Any other Appleton Ambulance member who can respond to the scene or the ambulance hall may do so during a call for service, excluding transports to or from other medical facilities. But, no more than four Appleton Ambulance members per ambulance shall ride in the ambulance to an emergency scene.

4. The ambulance shall not leave the ambulance hall or the hospital until the two members scheduled for that particular shift arrive or make it known that they are responding directly to the call. If a reasonable amount of time has passed, and there are at least 2 members available, the ambulance may proceed to the call, at the discretion of the scheduled EMTs present.

5. Should an on-call member not be able to get to the ambulance, they shall immediately notify the dispatcher or the other on-call member. The on-call member then shall make every attempt to get to the emergency scene and make contact with the ambulance as soon as possible.

Pay Procedures

1. Payroll is calculated in 2-week increments with checks usually ready by the Friday following the pay period. The pay period runs from 0700 hours Monday to 0659 hours Monday.

2. All time sheets are to be turned in to the Emergency Services Manager from AAH, no later than 0700 hours on the Monday that ends the pay period. Members who fail to meet this deadline will be responsible to turn in their time sheet by the next pay period.

3. Call and run time claimed, but not scheduled for, must be annotated on the time sheet.

4. See "Timesheet Guidelines for the Appleton Ambulance Service" for pay rates and other pay procedures.

5. All members will have an Appleton Ambulance jacket. New members are eligible for a new jacket upon completion of 320 call hours. Members with less than 320 call hours are eligible for a used jacket, until such time that they qualify for the new one.

GENERAL ADMINISTRATIVE GUIDELINES
Guideline Number - 1080.00 rev. 1/14/24

Timesheet Guidelines

Call Time

1. There will be two AAS members on call for AAS at all times, following MN Statute 144E.101 subdivisions 6 and 7. There are three rates for call time: weekday call, weekend call, and holiday call.
    a. Weekday call time is from 7a Monday to 7p Friday.
    b. Weekend call time is from 7p Friday to 7a Monday.
4. If backup is needed by the on call crew, backup is paid at the appropriate call time, and listed as call time on the timesheet.
5. A holiday consists of the 24-hr time period starting at 7a on the day of the holiday. Holidays are as listed in the AAH employee handbook (New Year's Day, Easter Sunday, Memorial Day, Independence Day, Labor Day, Thanksgiving, Christmas Eve, and Christmas Day)/

Run time

1. Run time is paid at the EMT's rate based on their years of experience with any ambulance service. Service with another ambulance service will be verified in writing.
2. When on a call, EMTs will be paid their run time rate in addition to their call time. Call time will continue for EMTs on a run until the run is over, even if it goes beyond the EMT's scheduled call time for that shift.
3. Third person on a run will be paid run time only (no call time).
4. Under normal circumstances, only three EMTs may be paid for a run or a transfer.
5. Run time shall be a minimum of 1 hr.
6. All run times and transfer times shall be rounded up to the nearest one-half hour.
7. Rig check, inventory, and cleanup will be paid at run time only (no call time, unless you are on call).

GENERAL ADMINISTRATIVE GUIDELINES
Guideline Number - 1080.00 rev. 10/25/16

Timesheet Guidelines (continued)

Transfer time

1. Transfer time starts when EMTs are contacted by the hospital with notification of the transfer (within one hour of the transfer start). Backup time starts at the same time.
2. When on a transfer, EMTs will be paid their transfer time rate in addition to their call time. Call time will continue for EMTs on the transfer until the transfer is over, even if it goes beyond the EMT's scheduled call time for that shift.
3. Third person on a transfer will be paid transfer time only (no call time). Third person on a transfer must be necessary as deemed by the senior EMT on call.

Standby time

1. Standby events will be scheduled by contacting the administrator.
2. Standby time shall be paid at the EMT's run time plus call time.
3. Standby time is paid for county fair events, sports events, and events where our assistance is not immediately required but standby is requested.

New EMT scheduling

1. EMTs who are new to the service may be placed on the schedule as third person after approval of the administrator. New EMTs may then contact the scheduling assistant to be placed on the schedule. When scheduled, new EMTs are expected to respond to calls.
2. New EMTs will be allowed to take call as second person after completing at least three calls as third person, and after receiving approval from the administrator. The number of calls can be waived at the discretion of the administrator.
3. While on call as third person, a new EMT will be paid for runs, transfers, and standbys, but will not be paid for call time.

Pay Scales: Pay scale shall be as per the Pay Scale sheet, which will be reviewed each year.

GENERAL ADMINISTRATIVE GUIDELINES
Guideline Number - 1080.00 rev. 6/22/24

Timesheet Guidelines (continued)

Scheduling

1. The AAS online schedule calendar is available to each member for pre-scheduling. Each member may schedule a maximum of 20 shifts for each upcoming month until 7 days before the monthly meeting. Within 7 days of the monthly meeting a member may pre-schedule without limit for the next month.
2. When pre-scheduling, shifts will be filled on a first-come, first-serve basis; except that full shift requests will have priority over partial shifts.
3. Weekend scheduling for the upcoming month may be pre-scheduled until meeting night. During meeting night scheduling will occur to fill whatever weekend shifts are open for the upcoming month.
4. If shifts are available after ambulance meeting scheduling, members are invited to fill in with as many shifts as wanted.
5. Staffing alternatives may be implemented by the administrator in times of staffing shortages.
6. Stand-by events are scheduled at the regular meeting, and are assigned after the call schedule has been filled. Preference for stand-by events is the same as for scheduling.

GENERAL ADMINISTRATION GUIDELINE
Guideline Number- 1100.00 rev. 10/17/08

SCOPE

These Patient Care Guidelines apply to BLS ambulance services.

The following guidelines are to be used as consultative information to strive for the optimal care of patients. The statements contained herein are intended to be informative and represent what is believed to be the current standard of care for any particular circumstance. It is recognized that any specific procedure or recommendation is subject to modification depending on circumstances of a particular case.

A. Age limits for pediatric and adult medical guidelines must be flexible. For ages less than 13 years, pediatric orders should apply. Between the ages of 13 and 18, judgment should be used, although pediatric orders will usually apply. Adult guidelines apply to patients age 18 and over. It is recognized that the exact age of a patient is not always known.

B. Courtesy to the patient, the patient's family, and other emergency care personnel is of utmost importance. Providing quality patient care includes bringing any of the patient's medication vials along with them when they are transported to a hospital or other facility.

C. Minnesota Statutes, Chapter **144E.123 PREHOSPITAL CARE DATA.** Requires the following: Subdivision 1. **Collection and maintenance.** A licensee shall collect and provide prehospital care data to the board in a manner prescribed by the board. At a minimum, the data must include items identified by the board that are part of the National Uniform Emergency Medical Services Data Set. A licensee shall maintain prehospital care data for every response. Subdivision 2. **Copy to receiving hospital.** If a patient is transported to a hospital, a copy of the ambulance report delineating prehospital medical care given shall be provided to the receiving hospital.

D. The specific conditions listed for treatment in this document, although frequently stated as medical diagnosis, are merely provider impressions to guide the EMS care provider in initiating appropriate treatment. This document is to be used as consultative material in striving for optimal patient care. It is recognized that specific procedures or treatments may be modified depending on the circumstances of a particular case. A medical control physician should be contacted anytime there is a concern regarding the patient's status.

GENERAL ADMINISTRATIVE GUIDELINE
Guideline Number- 1125.00 rev. 10/17/08

CISD AND PEER COUNSELING

EMS personnel are encouraged to familiarize themselves with the causes and contributing factors of critical incident and cumulative stress, and learn to recognize the normal stress reactions that can develop from providing emergency medical services. An EMS Peer Counseling Program is available to EMS personnel through the Regional EMS Programs. The program consists of mental health professionals, chaplains, and trained peer support personnel who develop stress reduction activities, provide training, conduct debriefings, and assist EMS personnel in locating available resources. The team will provide voluntary and confidential assistance to those wanting to discuss conflicts or feelings concerning their work or how their work affects their personal lives.

A critical incident is any response that causes EMS personnel to experience unusually strong emotional involvement. A formal or informal debriefing will be provided at the request of medical authorities, ambulance management or EMS personnel directly related to the incident.

Contact information for Regional EMS Programs is available on the EMSRB website at www.emsrb.state.mn.us

Guideline Number- 1150.00 rev. 6/25/24

DEAD ON ARRIVAL (DOA)

DOA Criteria Defined:

A pulseless, apneic patient can be called deceased on arrival if the following signs are present:

- Rigor mortis (Caution: do not confuse with stiffness due to cold environment);
- Dependent lividity;
- Decomposition;
- Decapitation;
- Severe trauma that is not compatible with life; or
- Incineration.

A DOA patient should not be moved unnecessarily. If law enforcement is not already on scene, they should be contacted immediately. Ambulance personnel or law enforcement should then contact the county coroner for further instructions.

If requested, the ambulance service may transport the body to the hospital, or to the funeral home, at the coroner's discretion.

Guideline Number-1175.00 rev. 10/17/08

DNR AND LIVING WILLS

Do Not Resuscitate (DNR, No CPR) orders are orders issued by a patient's physician to refrain from initiating resuscitative measures in the event of cardiopulmonary arrest. Patients with DNR orders may receive vigorous medical support, including all interventions specified in the Medical Guidelines, up until the point of cardiopulmonary arrest.

In the nursing home, a DNR order is valid if it is written in the order section of the patient chart (or on a transfer form) and is signed by a physician, registered nurse practitioner, or physician assistant acting under physician authority. Copies of the order are valid. In a private home, the standard DNR form must be signed by the patient or proxy, the physician, and a witness in order to be valid. No validation stamp or notarization is necessary, and a legible copy is acceptable.

If possible, the DNR order or copy should accompany the patient to the hospital. Pertinent documentation should be included on the ambulance report form for the run. In the event of confusion or questions regarding the DNR order, resuscitation should be initiated and a medical control physician should be consulted.

Living Wills

The presence of a living will should not alter your care. The living will cannot be interpreted in the field. Living wills should not be interpreted at the scene but conveyed to the physicians in the receiving Emergency Department.

DNR (Do Not Resuscitate)

1. CPR may be withheld if apneic, pulseless (at-home) patient has a ***Minnesota Medical Association DNR Form*** signed by themselves or their guardian, a witness and their physician. **MUST** be signed by all three.
2. CPR may be withheld if apneic, pulseless (nursing home) patient has an order in their medical record signed by their physician.
3. When the patient is **NOT** apneic and pulseless, standard medical care should be provided regardless of their DNR status.

One **Valid HOME DNR Order** is a ***Minnesota Medical Association DNR Form*** signed by the patient or their legal guardian, a witness and their physician. All three signatures MUST be present. Copies are valid. No validation stamp or notarization is necessary. A **VALID Nursing Home DNR Order** is a signed physician order that can be found in the patient's medical chart.

GENERAL ADMINISTRATIVE GUIDELINE
Guideline Number - 1200.00 rev. 10/17/08

Infection Control Plan

Minnesota Statute 144E.125 Operation Procedures, requires that Minnesota Licensed Ambulance Services have a procedure for infection control.

Ambulance Services are required to comply with OSHA reg. 1910.1030(c)

Universal precautions (aka - Standard precautions) refers to the practice, in medicine, of avoiding contact with patient's bodily fluids, by means of the wearing of nonporous articles such as medical gloves, goggles, and face shields. Medical instruments should be handled carefully and disposed of properly in a sharps container. Pathogens fall into two broad categories, blood borne (carried in the body fluids) and airborne. Universal precautions cover both types.

Universal precautions should be practiced in any environment where workers are exposed to bodily fluids, such as:

- Blood
- Semen
- Vaginal secretions
- Synovial fluid
- Cerebrospinal fluid
- Pleural fluid
- Peritoneal fluid
- Pericardial fluid

Whenever providing care for a patient with a febrile respiratory illness, perform the following:

1. Wear a mask
2. Wear eye protection if productive cough present and while performing any procedure which may result in droplet production (nebs)

What is a "Significant Exposure"?

- Patient's blood or body fluids contact an opening in the skin (e.g. cuts, abrasions, dermatitis, or blisters) or if there is prolonged contact or an extensive area is exposed.
- Blood or body fluids sprayed into your eyes, nose or mouth.
- Puncture wound from a needle, human bites, or other sharp object that has had contact with the patient's blood or body fluids.

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GENERAL ADMINISTRATIVE GUIDELINE
Guideline Number - 1200.00 rev. 10/17/08

Infection Control Plan (continued)

- Potential exposure or known exposure to airborne transmitted organisms (e.g. Tuberculosis) or droplet transmitted organism (e.g. Meningitis).

How do I prevent a "Signature Exposure"?

- Use gloves for patient contact, shielded face masks and/or mask with safety goggles for airway management, shielded masks with gowns for obstetrical deliveries, N-95 masks for potential TB patients or patients coughing bloody sputum and/or experiencing night sweats with weight loss.

What if a "Significant Exposure" Occurs?

- Wash the exposed skin, blow your nose, irrigate your eyes, and consider gargling as soon as possible.
- Report the incident immediately to your supervisor.
- Follow the infectious source (patient) to the hospital for a post exposure evaluation.
- Report to the ER to initiate Exposure protocol.

What if a "Significant Contamination of Clothing" Occurs?

If an EMT has a significant contamination of clothing, at the EMT's discretion, the clothing may either be given to the hospital for washing, or discarded. If clothing is discarded, the service shall reimburse the EMT for replacement of the clothing. This may include, but is not limited to, pants, shirt, socks, shoes, and jackets.

Guideline Number- 1225.00 rev. 10/17/08

MANDATORY REPORTING ISSUES

It is mandatory to report certain crimes; failure to report these incidents may be a crime itself. Minnesota offers immunity from liability for people who report incidents in good faith. When required to report these incidents you are exempt from patient confidentiality requirements.

Minnesota State statute (626.556-67) requires the EMT-B to report the following:

- Child abuse
- Vulnerable adult abuse (elderly, spouse, mentally challenged)

Document clearly on the patient care report that your concerns have been reported and to whom you reported.

Discuss your concerns with the administrator or medical director if you have any question about the requirement to report an incident.

EMSRB Mandatory Reporting Requirements

Ambulance Services are mandated to report to the Minnesota EMS Regulatory Board in compliance with the following statutes:

Minnesota Statute144E.305 REPORTING MISCONDUCT Subd.2(a)
Subd. 2. **Mandatory reporting.** (a) A licensee shall report to the board conduct by a first responder, EMT, EMT-I, or EMT-P that they reasonably believe constitutes grounds for disciplinary action under section 144E.27, subdivision 5, or 144E.28, subdivision 5. The licensee shall report to the board within 60 days of obtaining verifiable knowledge of the conduct constituting grounds for disciplinary action.

144E.305 REPORTING MISCONDUCT Subd.2(b)
Subd. 2. **Mandatory reporting.** (b) A licensee shall report to the board any dismissal from employment of a first responder, EMT, EMT-I, or EMT-P. A licensee shall report the resignation of a first responder, EMT, EMT-I, or EMT-P before the conclusion of any disciplinary proceeding or before commencement of formal charges but after the first responder, EMT, EMT-I, or EMT-P has knowledge that formal charges are contemplated or in preparation. The licensee shall report to the board within 60 days of the resignation or initial determination to dismiss. An individual's exercise of rights under a collective bargaining agreement does not extend the licensee's time period for reporting under this subdivision.

GENERAL ADMINISTRATIVE GUIDELINE
Guideline Number - 1250.00 rev. 10/17/08

Patient Confidentiality

Purpose

The purpose of this document is to outline and educate BLS Ambulance Services concerning the policies and procedures needed to comply with the patient privacy rights enacted under the Health Insurance Portability and Accountability Act of 1996 (HIPAA).

Policy

1. The patient has the right to receive a privacy notice in a timely manner. An attempt shall be made at the end of an ambulance call to provide the patient with an Appleton Ambulance Service HIPAA notice. Receipt of this notice will be documented on the Patient Care Report. Upon request, the patient may at any time receive another paper or digital copy of the privacy notice.
2. **Requesting restrictions on certain uses and disclosures.** The patient has the right to object to, and ask for restrictions on, how his or her health information is used or to whom the information is disclosed, even if the restriction affects the patient's treatment, payment, or health care operation activities. The patient may want to limit the health information that is included in patient directories, or provided to family or friends involved in his or her care or payment of medical bills. The patient may also want to limit the health information provided to authorities involved with disaster relief efforts. However, we are not required to agree in all circumstances to the patient's requested restriction.
3. **Receiving confidential communication of health information.** The patient has the right to ask that we communicate his or her health information to them in different ways or places. For example, the patient may wish to receive information about their health status in a special, private room or through a written letter sent to a private address. We must accommodate requests that are reasonable in terms of administrative burden. We may not require the patient to give a reason for the request.
4. **Access, inspection and copying of health information**. With a few exceptions, patients have the right to inspect and obtain a copy of their health information. However, this right does not apply to psychotherapy notes or information gathered for judicial proceedings, for example. In addition, we may charge the patient a reasonable fee for copies of their health information.

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GENERAL ADMINISTRATIVE GUIDELINE
Guideline Number - 1250.00 rev. 10/17/08

Patient Confidentiality (continued)

5. **Requesting amendments or corrections to health information**.
If the patient believes their health information is incomplete or incorrect, they may ask us to correct the information. The patient may be asked to make such requests in writing and to give a reason as to why his or her health information should be changed. However, if we did not create the health information that the patient believes is incorrect, or if we disagree with the patient and believe his or her health information is correct, we may deny the request. We must act on the request within 60 days after we receive it, unless we inform the patient of our need for a one-time 30-day extension.

6. **Receiving an accounting of disclosures of health information**.
In some limited instances, the patient has the right to ask for a list of the disclosures of their health information that we have made during the previous six years, but the request cannot include dates before April 14, 2003. This list must include the date of each disclosure, who received the disclosed health information, a brief description of the health information disclosed, and why the disclosure was made. We must furnish the patient with a list within 60 days of the request, unless we inform the patient of our need for a one-time 30-day extension, and we may not charge the patient for the list, unless the patient requests such list more than once in a 12 month period. In addition, we will not include in the list disclosures made to the patient, or for purposes of treatment, payment, health care operations, national security, law enforcement/corrections, and certain health oversight activities.

7. **Complaints**. Patients have the right to file a complaint with an ambulance service and with the federal Department of Health and Human Services if they believe their privacy rights have been violated. We will not retaliate against the patient for filing such a complaint.

GENERAL ADMINISTRATIVE GUIDELINES
Guideline Number – 1275.00 rev. 10/17/08

Patient Consent and Refusal

A patient who is competent and can legally do so may refuse treatment. Minors may not consent to or refuse emergency treatment. The EMT will attempt to contact the guardian of a minor to gain consent to treatment. If a guardian cannot be reached in a timely manner, the EMT will treat the patient based on “implied” consent.

A patient who is emancipated may legally consent to or refuse treatment. A minor who is the mother of a child may legally consent to or refuse treatment.

A patient who is not competent to make medical decisions cannot refuse treatment. This would include, but is not limited to, patients who are impaired due to alcohol or drugs. Patients who are in shock also may not be competent to consent to or refuse treatment.

When in doubt, the EMT is encouraged to contact medical control to consult regarding consent or refusal of emergency treatment.

Guideline Number - 1300.00 rev. 10/17/08

PHYSICAN OR MEDICAL PROVIDER ON SCENE

If a Physician/Registered Nurse/ Physician Assistant is present on scene, and wishes to assume medical direction. **The following must occur:**

1. Provider must:
   a. Produce identification and copy of a Valid Minnesota Medical License.
   b. Agree to accompany the patient to the receiving facility.
   c. Agree to sign the patient care report assuming medical responsibility for the patient.

2. Medical Control must be informed and consent to the provider assuming on scene medical direction.

3. If the physician does accept the terms above, upon arrival at the hospital obtain a photo copy of the license and attach to the patient care report.

GENERAL ADMINISTRATIVE GUIDELINES
Guideline Number - 1325.00 rev. 10/17/08

Response Obligations

Obligated to Assess & Treat
When you respond to an emergency medical call, you are obligated to assess and treat the patient. Responsibility for the patient continues until a higher medical authority (paramedic, registered nurse, and/or physician) assumes care.

GENERAL ADMINISTRATIVE GUIDELINES
Guideline Number - 1355.00 rev. 4/22/09

Vehicle Operations

Emergency Vehicle Operations Course (EVOC)
Before being allowed to drive the ambulance, the EMT will have taken an Ambulance Emergency Vehicle Operations Course (EVOC). If an EMT must drive that has not taken EVOC, they may not use lights and sirens. In no case may an EMT drive the ambulance before they have been given orientation instruction in the service's vehicles.

Enroute
When responding to a call, the ambulance driver will respond either lights and sirens (code 3), or without lights and sirens (code 2), based on the best available information. When in doubt, respond code 2. The following emergencies should be responded code 3:

1. Patient unresponsive
2. Patient pulseless or breathless
3. MVA with multiple patients
4. Patients complaining of chest pain
5. Patients likely to be in hypovolemic shock
6. Patients complaining of shortness of breath

Other drivers
Under extraordinary circumstances, persons other than Appleton Ambulance personnel may drive an ambulance, at the discretion of the senior EMT on scene. In all cases, the personnel with the most EMS training shall be in the back of the ambulance when transporting the patient (see MN Stat. 144E.102. Subd. 2).

If an assistant is on a call to drive, the EMT shall drive to the scene, and the assistant shall drive for the return trip. An assistant may not use lights and sirens, and must obey all pertinent traffic regulations.

GENERAL ADMINISTRATIVE GUIDELINES
Guideline Number - 1360.00 rev. 8/22/10

Request for Mutual Aid Transfers

Pursuant to mutual aid agreements in place with surrounding communities and areas, requests for interfacility transfers when the primary ambulance and first call crew is already on a transfer will follow these guidelines:

The senior EMT providing back-up 911 response, upon receiving a request for an interfacility transfer from within our primary service area shall:

1. Determine the return time of the first call crew, either by cell phone or by radio.
2. If the return time of the first call crew is unreasonable (over 30 minutes), the EMT shall request mutual aid assistance from Dawson Ambulance Service by contacting Lac qui Parle dispatch (320-598-3720). Dawson Ambulance personnel should be asked to contact the EMT within 10 minutes from the time of their page.
3. If Dawson Ambulance is unable to provide mutual aid, or has not contacted the EMT within the 10 minute timeframe, the EMT shall contact Stevens County Ambulance Service to request mutual aid transfer.
4. The EMT shall then notify the hospital of the transfer request status, and appropriate timelines.

In any event, the senior EMT providing back-up 911 response may take other actions, if circumstances warrant. But in no event shall both ambulances leave the PSA on transfers at the same time.

GENERAL ADMINISTRATIVE GUIDELINES
Guideline Number - 1380.00 rev. 4/26/12

One EMT not responding to call

Per AAS BLS guideline 1075.00, #4 and 5, under normal circumstances the ambulance shall not leave the ambulance hall or the hospital until two members scheduled for that particular shift arrive or make it known that they are responding directly to the scene. If an unreasonable amount of time passes and a second EMT is not available at the ambulance hall, the EMT may:

1. Request that dispatch re-page making it known that a second EMT is needed to respond.
2. Phone dispatch to determine the availability of the local law enforcement personnel. If law enforcement is available the single EMT may proceed to the scene without a second staff member present.
3. Request that dispatch re-page and request assistance from local fire department personnel.

If the EMT must respond to the scene with assistant personnel other than an AAS staff member, per AAS BLS guideline #1355 the EMT shall drive to the scene, and the assistant shall drive for the return trip if needed. An assistant may not use lights and sirens, and must obey all pertinent traffic regulations.

GENERAL ADMINISTRATIVE GUIDELINES
Guideline Number - 1385.00 rev. 3/24/11

Winter transfer guidelines

Upon receiving a request for a transfer during the winter months the responding EMT shall review the most current weather and DOT roadway information to ascertain the safety of the proposed transfer.

If the transfer cannot be made safely, the EMT shall notify the hospital and the administrator as soon as possible, so that alternative arrangements may be made.

In the event a transfer is undertaken, and it becomes unsafe to return to Appleton, the EMT shall notify the administrator as soon as possible, so that arrangements can be made for backup in Appleton.

If stranded while on a transfer, the following pay and financial guides will be enforced:

1. If overnight accommodations are required, EMTs shall be refunded for their entire expenses.
2. While stranded, all meals will be compensated.
3. Each EMT will be allowed to bill up to 8 hours of transfer time per 24 hour period that the EMT is away from Appleton.

Guideline Number –1390.00 rev. 10/17/08
Restraint Use

PURPOSE:

To provide guidance and criteria for the use of physical restraint of pts during care and transport.

DEFINITION:

Any mechanism used to physically confine a patient. This includes, but is not limited to: soft composite dressing, tape, leathers or hand cuffs wrapped and secured at the wrist and/or ankles and/or chest or lower extremities.

POLICY / PROCEDURE

A. If EMS personnel judge it necessary to restrain a patient to protect him/her self from injury, or to protect others (bystanders or EMS personnel) from injury:

   1. Document events leading up to the need for restraint use in the patient record.
   2. Document the method of restraint and the position of restraint in the pt record.
   3. Document the reason for restraining the patient.
   4. In the event that the patient spits, the rescuer may place over the patient's mouth and nose a surgical mask or an oxygen mask that is connected to high flow oxygen.

B. Inform patient of the reason for restraint.

C. Restrain patients in a manner that does not impair circulation or cause choking or aspiration. **DO NOT restrain patients in the prone position (face down)**. Prone restraint has the potential to impair the patient's ability to breathe adequately. Police officers are trained in restraining violent individuals safely. Utilize the police on the scene in deciding the appropriate restraint technique to maximize the safety of the rescuers and the patient.

D. As soon as possible, attempt to remove any potentially dangerous items (belts, shoes, sharp objects, weapons) prior to restraint. Any weapons or contraband (drugs, drug paraphernalia) shall be turned over to a Law Enforcement Officer.

E. Assess the patient's circulation (checking pulses in the feet and wrists) every 5-10 minutes while the patient is restrained. If circulation is impaired, adjust or loosen restraints as needed. Document the presence of pulses in each extremity and the patient's ability to breathe after restraint is accomplished. Be prepared to turn the patient to facilitate clearance of the airway while also having suction devices readily available.

F. Inform hospital personnel who assume responsibility for the patient's care at the hospital of the reason for restraining the patient.

G. The EMT at his discretion may request that law enforcement accompany and or follow the patient to the hospital. **Any patient restrained in handcuffs shall have law enforcement accompany the patient in the patient compartment or follow the ambulance.**

Guideline Number –1400.00 rev. 01/04/11
Personnel records

POLICY / PROCEDURE

Pursuant to MN Statute 144E.101, Appleton Ambulance Service will keep a current roster of its ambulance personnel, including the name, address, and qualifications of its ambulance service personnel; and files documenting personnel qualification.

1. A current roster will be posted on the Appleton Ambulance website, with first name, and last initial only.
2. A current roster, with EMSRB license number and expiration date, will be kept in the Appleton Ambulance license book.
3. A current roster, with CPR certification and expiration date, will be kept in the Appleton Ambulance license book.
4. Personnel folders will be maintained by the Emergency Services Manager with documentation of current EMSRB licensure, CPR certification, and any specialized training received.

Guideline Number –1405.00 rev. 01/04/11
Complaint Procedure

POLICY / PROCEDURE

Pursuant to Minnesota Statute 144E.125, complaints regarding the Appleton Ambulance Service, or any of its members, will be submitted in writing to either the Appleton Ambulance administrator, or to the City of Appleton. In any case, the ambulance administrator, the ambulance medical director, and the city administrator will be jointly responsible for responding to and dealing with the complaint in an appropriate manner. Unresolved problems will be directed to the city council.

The complainant will be given the opportunity to fill out a Complaint Reporting Form, should the complainant wish to do so. If the complainant does not wish to fill out a form, the ambulance administrator will do so using the best information available at the time.

Membership on the Appleton Ambulance Service

Appleton Ambulance Service (AAS) will be made of up EMTs, EMRs, and EMT-paramedics. Each member will be listed on an AAS roster. Full membership will be given to those who participate in the service by taking call on a routine basis.

Scheduling is to be done on a self-assigning basis, except that each full member of the AAS shall be responsible for weekend call on a proportional basis. Weekend call is defined as the group of four shifts: Friday night 7p-7a, Saturday day 7a-7p, Saturday night 7p-7a, and Sunday day 7a-7p.

Weekend call can be self-scheduled by full members in advance. To allow for fair and equal responsibility for weekend call, each full member shall self-schedule for the month ahead before each monthly ambulance meeting.

If a member does not self-schedule for a weekend by the monthly ambulance meeting, the AAH Emergency Services Manager (ESM) will assign unscheduled members to open weekends for the month upcoming.

The assigned member shall have first opportunity and last responsibility to fulfill the requirements of being on call for the assigned weekend. If the member is unable to fulfill the requirements, the administrator may, as his/her discretion, fill the shift with other members.

If a member is unable to fulfill the weekend requirement their membership in AAS may be suspended, at the discretion of the AAH ESM.

Guideline Number - 1500.00

Adult
"GENERAL"

Patient Care Guidelines

Guideline Number - 1510.00 rev. 10/17/08

GENERAL PATIENT CARE GUIDELINE

Scene Survey

1. PPE
2. Scene safety / evaluate hazards
3. Mechanism of injury
4. Consider spinal stabilization
5. Number of victims
6. Additional resources

Establish LOC: A = alert, V = responds to voice, P = responds to pain, U = unresponsive..Obtain and document Glasgow Coma Scale (GCS)

Spinal Precautions: Manually stabilize c-spine if trauma is suspected

Airway: *Establish and maintain an open airway.* Place oral or nasal airway if unconscious. Consider non-visualized airway if not breathing (see AED Protocol)

Breathing: Administer oxygen if needed, 10-15 LPM via non-rebreather mask, or 1-6 LPM via nasal cannula. If breathing inadequate, assist ventilations.

Circulation/Perfusion: Assess pulses, assess skin color and capillary refill. Apply AED if patient in full arrest (see AED Protocol)

Bleeding: Apply direct pressure to external bleeding. Consider tourniquet for uncontrolled extremity bleeding.

Vital signs: Obtain respiratory rate, pulse rate, blood pressure and perfusion status. Obtain blood glucose determination.

History*

Head-to-Toe Exam: *All life-threatening problems should be treated as they are found.*

***History**

Patient name and age
Specific complaint or presenting signs and symptoms.
Allergies
Medications
Past medical history: cardiac, respiratory, hypertension, diabetes, seizures, stroke, cancer, recent surgery, recent trauma, other disease, illness or injury (medical alert tags)
Last oral intake
Events leading up to the illness or injury.

ALS Intercept Considerations:
Reporting: Update dispatch with pertinent information to be relayed to ALS crews.
Assist ALS with: Airway management, Vital signs, IV setup/start (if in scope), Variance med administration (if in scope), CPR, Transport

Guideline Number - 1510.00 rev. 10/17/08

GENERAL PATIENT CARE GUIDELINE

(Continued)

Pediatric Considerations

For complete Pediatric patient care guidelines refer to the *EMSC Pediatric BLS Guidelines* at: http://www.emscmn.org/HealthcareProfessionals/PediatricBLSGuidelines

1. Airway and breathing problems are the most common cause of cardiac arrest in children.
2. Do not hyperextend the neck when opening the airway in newborns or infants.
3. Use a Bag-Valve-Mask (BVM) or mouth to mask with one-way valve with supplemental oxygen to ventilate a child.
    a. 0 yr. To 5 yr. - 400cc BVM (infant size)
    b. 5 yr. To 90 lbs. – 1000cc BVM (pediatric size)
4. Newborns and infants are more prone to becoming hypothermic (cold). Prevent heat loss.

VITAL SIGN REFERENCE

Age	Respiratory Rate	Heart Rate	Systolic B/P
Newborn	**30-60**	**120-180**	**50-70**
Infant (<1)	**20-30**	**80-140**	**70-100**
Toddler (1-3)	**20-30**	**80-130**	**80-110**
Child (3-8)	**20-30**	**80-120**	**80-110**
Child (8-12)	**20-30**	**70-110**	**80-120**
Adolescent (13+)	**12-20**	**55-105**	**100-120**
Adult	**12-20**	**60-100**	**120**

Trauma Considerations

Airway: Airway remains the top priority while maintaining spinal precautions:

1. Establish and maintain an open airway using the modified jaw thrust.
2. All unconscious patients require an oral or nasal airway.
3. Begin oxygen therapy as soon as possible.
4. If the patient vomits or has fluids in airway: **MAINTAIN SPINAL STABILIZATION AND LOG ROLL PATIENT TO SIDE AS A UNIT** to clear out or suction the airway.

Spinal Precautions (manual head stabilization, rigid cervical collar, spine board)
Take spinal precautions whenever a trauma patient has:

1. Experienced a mechanism of injury that could cause an injury to the spine.
2. Loss of consciousness or altered level of consciousness.
3. Any complaint of numbness, tingling or inability to move extremities.
4. Complaints of pain in the head, neck, or back.
5. Evidence of intoxication or under the influence of drugs.
6. Head and/or facial trauma.
7. Penetrating injury to the head, neck or trunk.

NOTE: If in doubt immobilize.

Guideline Number – 2000.00

Adult
"SPECIFIC"

Patient Care Guidelines

Guideline Number – 2001.00

Adult "SPECIFIC"

Patient Care Guidelines

Medical Emergencies

Guideline Number - 2025.00 rev. 10/17/08

ALTERED LEVEL OF CONSCIOUSNESS

Signs & Symptoms

- Confusion
- Change in level of alertness
- Bizarre behavior
- Combativeness
- Drowsiness
- Unconsciousness

Causes

- Diabetic emergency
- Drugs/alcohol/poisons
- Hypoxia
- Respiratory Distress
- Seizure
- Head Injuries
- Exposure to Environmental Extremes (heat/cold)
- CVA or stroke
- Infections

History

- **S**igns & symptoms:
- **A**llergies
- **M**edications
- **P**ast Medical History:
  - Respiratory problems
  - Cardiac History
  - Hypertension
  - Recent delivery or pregnancy
  - Alcohol, tobacco, or Drug use
  - Recent surgery
- **L**ast oral intake
- **E**vents leading up to incident
  - Exertion
  - Bee sting
  - Spider bites
  - Exposures
  - Eating

Recent trauma

Treatment

SPINAL PRECAUTIONS

Take spinal precautions on ANY patient with altered LOC if trauma cannot be ruled out

LOC- AVPU

AIRWAY

Establish and maintain open airway
Place oral or nasal airway if unconscious

OXYGEN

Obtain Pulse Oximetry Reading
Administer Oxygen at 10 – 15 L/min by mask
(OR) Assist ventilations as needed
Consider Non Visualized Airway

VITAL SIGNS

Respiratory rate, Pulse, B/P,
Perfusion status & Blood Glucose level.

ASSESS LOC/PUPILS

AVPU, Orientation, GCS
Note an improvement or deterioration in LOC

ALS Intercept Considerations

- Airway management required
- Shock
- Unimproved after initial therapy

Reporting:
Update dispatch with significant information to be relayed to ALS Crews.

Assist ALS with:

- Airway Management
- Vital signs
- IV set up/start
  Variance Med Administration *(If in scope)*
- CPR
- Transport

Additional Considerations

- Consider non visualized airway (Combitube/King LT) if unresponsive.
- Be prepared for vomiting.
- Turn to side and clear airway. If the patient is on a backboard, maintain spinal stabilization and turn the patient as a unit (log roll) to side and clear out airway.

Guideline Number - 2050.00 rev. 10/17/08

ASTHMA

Signs & Symptoms

- Difficulty breathing and speaking
- Cyanosis
- Anxiety, decreased LOC
- Abnormal respiratory rate (<12 or >20)
- Decreased respiratory depth
- Noisy or labored breathing

Causes

- Asthma or Airway Obstruction
- Anaphylaxis
- Cardiac problems
- Hyperglycemia
- Infection
- Trauma
- Drug overdose/Chemical (toxic) exposure
- Stroke
- Pulmonary edema or embolism

History

- **S**igns & symptoms:
- **A**llergies
- **M**edications
- **P**ast Medical History:
  - Respiratory problems
  - Cardiac History
  - Hypertension
  - Recent delivery or pregnancy
  - Alcohol, tobacco, or Drug use
  - Recent surgery
- **L**ast oral intake
- **E**vents leading up to incident
  - Exertion
  - Bee sting
  - Spider bites
  - Exposures
  - Eating

Recent trauma

Treatment

LOC

AVPU

AIRWAY

Establish and maintain open airway

POSITION

Place patient at rest in position of comfort
Sitting up if conscious
Recovery position if vomiting or oral secretions

OXYGEN

Administer Oxygen at 10-15L/min by mask
(OR) Assist ventilations as needed

VITAL SIGNS

Respiratory rate, Pulse, B/P & Perfusion status, GCS
Blood glucose level

MEDICATION

Wheezing/Bronchospasms-Inhaler or Nebulizer
CPAP guideline

ALS Intercept Considerations

- Unimproved or worsening condition after initial treatment.
- Decreased LOC

Reporting:
Update dispatch with significant information to be relayed to ALS Crews.

Assist ALS with:

- Airway Management
- Vital signs
- IV set up/start *(If in scope)*
- Variance Med Administration *(If in scope)*
- CPR
- Transport

Additional Considerations

- Ensure a good mask to face seal, no air should escape around the mask during BVM ventilations, have suction unit nearby, ensure oxygen is connected and monitor supply.
- Patients who become unconscious should be laid down
- Nasal cannula is reserved for patients with COPD who complain of only mild distress without symptoms

Guideline Number- 2100.00 rev. 10/17/08
Behavioral or Psychiatric Emergencies

- Ensuring the safety of EMS personnel is of paramount importance. Always summon law enforcement to secure the scene and patient before attempting to provide medical care. Be aware of items at the scene or medical equipment that may become a weapon.

A. Guidelines for the Management of Uncooperative, Agitated, Violent or Potentially Violent Patients Secondary to a Medical Disorder

1. Assure appropriate police agency has been notified.
2. Follow altered level of consciousness protocol. These patients may be confused, disoriented, agitated, uncooperative, argumentative, lethargic or semi-comatose.
3. Obtain history from family, friends, witnesses or patient if possible.
4. Conduct as thorough a physical examination as can be done under the circumstances.
5. Support ventilation: if possible, administer oxygen via non rebreather or nasal cannula.
6. Keep calm. Do not get angry at the patient. Talk slowly and clearly to the patient. Do not shout or threaten. Constantly reassure the patient and identify yourself and constantly keep the patient informed of what you are doing and why.
7. If the patient becomes violent, or his actions present a threat to his safety or that of others, immediate restraint may be necessary.
8. Transport as soon as possible.

B. Guidelines for the Management of an Obviously Mentally Ill Person Who Is Violent or Considered to be Potentially Violent

1. If physical violence has occurred or there is a likelihood that the patient has access to a weapon, do not intervene. Take precautions for your own safety and that of others at the scene. Call for police assistance and await their arrival.
2. If no violence has occurred and the patient does not have access to weapons and can be approached with minimal danger to EMS personnel:
    a. Attempt to calm the patient.
    b. Do not shout or threaten.

(Continued next page)

Guideline Number- 2100.00 rev. 10/17/08

Behavioral or Psychiatric Emergencies

(Continued)

B. Guidelines for the Management of an Obviously Mentally Ill Person Who Is Violent or Considered to be Potentially Violent (Continued)

c. Identify yourself. Speak slowly, clearly and remain in control of your emotions.
d. Explain why you are there and that you would like to help him/her.
e. If patient continues to present a risk of violence, becomes increasingly agitated and uncooperative, do not force the issue. Withdraw and wait for law enforcement personnel.

C. Restraint Protocol

This is to be used when a patient who is sick or injured (non-mentally ill) because of central nervous impairment, is behaving in such a manner as to interfere with his examination, care and treatment to the extent that he endangers his life or the safety of others. May also be used when restraining and transporting a mentally ill person at the request of a police officer.

1. Clear the area of family and bystanders.
2. Make a plan before any attempt at restraint, assigning specific duties to each member of the team. Designate a team leader.
3. A show of force may initially be sufficient to gain the cooperation of the patient and is preferable to the actual use of force as a first step.
4. Use only as much force as required. Never strike patient.
5. Physically control patient. Apply restraints.
6. Restraints should be of a soft nature, i.e., leather cuffs, cravats, sheets, etc. Apply to the wrists and ankles. Restraints should not cut off circulation. Check CMS every 10 minutes.
7. Once restrained, the patient should be checked for Medical Alert tags, medications or possible weapons.
8. If restrained secondary to central nervous system impairment, overdose or vomiting, keep the patient in the left lateral recumbent position. Hard restraints such as handcuffs are not acceptable.

(Continued next page)

Guideline Number- 2100.00 rev. 10/17/08

Behavioral or Psychiatric Emergencies

(Continued)

9. If restrained secondary to central nervous system impairment, overdose or vomiting, keep the patient in the left lateral recumbent position. Hard restraints such as handcuffs are not acceptable.
10. Patient should be secured to stretcher only **(not backboard)** and secured by straps or sheets at the, pelvis, arms, and legs. **Restrain patient supine only.**
11. Patient should never be secured to a vehicle or immovable object.
12. Once restraints have been applied, they should never be removed until the patient is safely in the hospital.
13. Stay with the restrained person at all times. Be observant for possible vomiting. Be prepared to turn the patient and suction if necessary.
14. Transport as soon as possible.
15. Remain calm and alert. Attempt to calm the patient.

Guideline Number - 2125.00 rev. 10/17/08

CARDIAC ARREST

Signs & Symptoms

- Unresponsive
- Apneic
- Pulseless
- Multiple unconscious victims (no signs of trauma) Consider a HAZMAT situation – remove yourself from scene until scene safety can be confirmed.

Causes

- Airway obstruction
- Cardiac Rhythm Disturbance/MI
- Drowning
- Drug overdose
- Electrocution
- Hypothermia
- Cyanide
- Trauma

History

- **S**igns & symptoms:
- **A**llergies
- **M**edications
- **P**ast Medical History:
  - Respiratory problems
  - Cardiac History
  - Hypertension
  - Recent delivery or pregnancy
  - Alcohol, tobacco, or Drug use
  - Recent surgery
- **L**ast oral intake
- **E**vents leading up to incident
  - Exertion
  - Bee sting
  - Spider bites
  - Exposures
  - Eating

Recent trauma

Treatment

AIRWAY

Establish and maintain open airway
Place oral or nasal airway

BREATHING

Utilize BVM with supplemental Oxygen

CIRCULATION

Expose chest and begin CPR

AED

Attach Semi-Automatic Defibrillator

See CPR/AED Guideline for further instructions

Note: When you find a public access defibrillator already in use you may use the pre-attached pads and the device unless the pads are incorrectly placed or the device is malfunctioning. An advanced airway should not be placed until after the AED has first analyzed and advised to shock or not to shock.

Consider ALS Intercept If:

- Available

Reporting:
Update dispatch with significant information to be relayed to ALS Crews.

Assist ALS with:

- Airway Management
- Vital signs
- IV set up/start *(If in scope)*
- Variance Med Administration *(If in scope)*
- CPR
- Transport

Additional Considerations

- Move patient to a workable space if appropriate:
  - Out of confined space
  - Onto hard surface
  - Out of bed
- Bring in reserve oxygen tank, assure properly connected.
- Gastric distention may be caused by :
  - Not opening the airway enough.
  - Ventilating with too much volume.
  - Ventilating too rapidly.
- If vomiting occurs roll patient to side, clear airway, suction.

Guideline Number - 2150.00 rev. 10/17/08

CARE OF THE NEWBORN

Signs & Symptoms of Imminent Delivery

- Premature Newborn is one that weighs less than 5 ½ pounds at birth or one that is born before the 37th week of pregnancy.
- Full-term newborn (37-40 weeks)
- Overdue pregnancies - Greater than 40 weeks gestation, have greater risk of complications

Causes

- Delivery of the full-term newborn
- Delivery of the premature newborn. Premature newborns need special care from the moment of birth.

History

- **S**igns & symptoms
  Due date
  Time of delivery
  Color of amniotic fluid
- **A**llergies
  - Not established in the newborn
  - Note mother's allergies
- **M**edications
  - Note mother's medications/ drug history
- **P**ast Med History:
  - Mothers
  - Prenatal
- **L**ast oral intake
- **E**vents (abnormal)

Treatment

AIRWAY

Suction mouth, then nose with bulb syringe.

MINIMIZE HEAT LOSS

Dry newborn well
Increase room temperature or move to warm environment.
Wrap newborn in blanket and place hat or towel on newborns head to prevent heat loss.

VITAL SIGNS

Monitor respiratory rate (normal 30-60/min)
Monitor pulse rate (normal 120-189)
Obtain an APGAR score on newborn
At 1 and 5 minutes after birth (see below)

If breathing minimal or absent:
Provide physical stimulation
(rub newborns back)
If no improvement utilize BVM ventilations
(Attach BVM to supplemental oxygen)
If pulse <60/min after 30 seconds of adequate ventilation: Begin CPR

Consider ALS Intercept If:

- Premature Newborn
- CPR required
- Ventilations Required
- APGAR less than 8 at 5 minutes

Reporting:
Update dispatch with significant information to be relayed to ALS Crews.

Assist ALS with:

- Airway Management
- Vital signs
- IV set up/start
- Transport

Newborn APGAR

	0 points	1 point	2 points
heart rate	absent	<100	>100
respiratory effort	absent	slow or irregular	strong
muscle tone	floppy	movement	active
irritability	no response	some	vigorous
color	blue, pale	blue & pink	pink

Additional Considerations

- When the nostrils are suctioned the baby may gasp or begin breathing and aspirate or suck any Meconium, blood, fluids or mucus from its mouth into its lungs. This is why you should suction the mouth before the nostrils.
- Most newborns respond well to drying, stimulation, oxygen and if needed bag-mask-ventilation.

Guideline Number - 2200.00 rev. 10/17/08

CHEST PAIN/DISCOMFORT (Suspected MI)

Signs & Symptoms

- Chest pain, pressure or discomfort in any adult
- Unexplained jaw, neck, back, arm or shoulder pain
- Syncopal episode (passing out) in any adult
- Unexplained shortness of breath, fatigue, diaphoresis (sweating, pale skin) in any adult (especially elderly)
- Ashen, pale or cyanotic color
- Irregular pulse
- Anxiety, nausea &/or vomiting
- Altered Level of Consciousness (LOC)

Causes

- Coronary Artery Disease
- Spasm or Blockage of the coronary arteries (little to no oxygenated blood flow to cardiac muscle)
- Myocardial Infarction (heart muscle death)

History

- **S**igns & symptoms:
- **A**llergies
- **M**edications
- **P**ast Medical History:
  - Respiratory problems
  - Cardiac History
  - Hypertension
  - Recent delivery or pregnancy
  - Alcohol, tobacco, or Drug use
  - Recent surgery
- **L**ast oral intake
- **E**vents leading up to incident
  - Exertion
  - Bee sting
  - Spider bites
  - Exposures
  - Eating

Recent trauma

Treatment

LOC
AVPU

REASSURE
Reassure to decrease anxiety
Assess Pain Rating / Scale 1-10

POSITION OF COMFORT
Place patient in position of comfort
Usually this is seated, head elevated

OXYGEN
Pulse Oximetry Reading
Administer Oxygen at 10-15L/min mask
(OR) Assist ventilations as needed

VITAL SIGNS
Respiratory rate, Pulse, B/P &
Perfusion Status, Glasgow Coma Scale

MEDICATION
Aspirin
Nitroglycerin

Consider ALS Intercept If:

- Pain not improved after third NTG
- ALS able to obtain/transmit 12-lead ECG
- Hypotension Occurs

Reporting:
Update dispatch with significant information to be relayed to ALS Crews.

Assist ALS with:

- Airway Management
- Vital signs
- IV set up/start
- Transport

Additional Considerations

- Administration of nitroglycerin will require frequent vital signs.
- Consider placing the patient on the automatic blood pressure monitor once an initial manual set of vital signs has been obtained.

Protocol Number - 2225.00 rev. 10/17/08

CHF / PULMONARY EDEMA

Signs & Symptoms

- Appears anxious, agitated
- Respiratory Distress
- Rapid, shallow breathing
- Fatigue
- Noisy or "wet-sounding" breathing
- May have wheeze
- May have edema (swelling) to feet and legs
- May exhibit pink frothy sputum

Causes

- Congestive heart failure (CHF)
- Heart attack (MI)
- Inhalation injury (chemical or nerve agent)
- Smoke inhalation
- Drug overdose
- Heat
- Cold

History

- **S**igns & symptoms:
- **A**llergies
- **M**edications
- **P**ast Medical History:
  Respiratory problems
  Cardiac History
  Hypertension
  Recent delivery or pregnancy
  Alcohol, tobacco, or Drug use
  Recent surgery
- **L**ast oral intake
- **E**vents leading up to incident
  Exertion
  Bee sting
  Spider bites
  Exposures
  Eating

Recent trauma

Treatment

LOC
AVPU

REASSURE
Reassure to decrease anxiety

POSITION OF COMFORT
Place patient in position of comfort
Usually this is seated, head elevated

OXYGEN
Administer Oxygen at 10-15L/min mask (OR)
Assist Ventilations as needed

VITAL SIGNS
Respiratory rate, Pulse, B/P, Perfusion status& GCS

MEDICATION
NTG
CPAP if available

ALS Intercept Considerations

- Respiratory Arrest
- Unimproved or worsening condition after initial treatment.
- Severe HTN (SPB > 200 Hg)
- Shock

Reporting:
Update dispatch with significant information to be relayed to ALS Crews.

Assist ALS with:

- Airway Management
- Vital signs
- IV set up/start *(If in scope)*
- Variance Med Administration *(If in scope)*
- CPR
- Transport

Additional Considerations

- Be assertive with oxygen even if the patient resists
- NTG administration to be considered ***after contacting Medical Control***
- Patients experiencing "air hunger" are very anxious, and require constant reassurance

Guideline Number - 2250.00 rev. 6/25/24

CVA (Cerebral Vascular Accident) / STROKE

Signs & Symptoms

- Confusion, decreased coordination
- Weakness and/or paralysis (usually one sided)
- Slurred speech or inability to speak
- Facial drooping, sensory changes
- Difficulty swallowing or breathing
- High blood pressure
- Headache, gaze preference

Hypoglycemia may present with same signs!

Causes

- Hypertension (HTN)
- Medications (Coumadin, Heparin)
- Cerebrovascular disease
- Cardiac Arrhythmia (Atrial fibrillation & flutter)
- Congenital vascular malformations (Aneurysms)
- Diabetes (causes brittle blood vessels)
- Tobacco usage
- Sickle Cell Disease

History

- **S**pecific complaint or signs & symptoms
- **A**llergies
- **M**edications
- **P**ast Medical History:
  - Cardiac
  - Respiratory
  - Exposures
  - Recent trauma
  - Drug use
    - (Medical alert tags)
- **L**ast Oral Intake
- Events leading up to injury or illness

Treatment

LOC -AVPU

AIRWAY

Establish and maintain open airway
Place oral or nasal airway if unconscious

POSITION

Roll non-trauma patient on to side (Recovery position)

OXYGEN

If pulse Oximetry is < 94% Administer Oxygen via NC or NRB *(or)*
Assist Ventilations as needed

VITAL SIGNS

Assess respiratory rate, pulse, B/P, Perfusion status & GCS
Obtain blood glucose level

ASSESS LOC/CMS

Re-assess Orientation, Document GCS
BE FAST Stroke Scale:
Loss of Balance, Loss of vision in one or both eyes, Face uneven, Arm weak, Speech slurred, Terrible headache

Consider ALS Intercept If:

- Airway not secure

Reporting:
Update dispatch with significant information to be relayed to ALS Crews.

Assist ALS with:

- Airway Management
- Vital signs
- IV set up/start

Additional Considerations

- **Patients with onset of symptoms of less than 24 hours may be a candidate for specialized treatment (thrombolytics if <= 4.5 hrs, emergency endovascular procedure if < 24 hrs).** ***Contact Medical Control (receiving hospital) IMMEDIATELY, advising them of a patient having "stroke alert" status.***
- Stroke may be so severe the person is unconscious and may have signs of swelling in the brain (e.g. unequal pupils, irregular breathing).
- Monitor and protect all paralyzed limbs when moving patients.
- These patients have difficulty protecting their own airways. Aggressively treat airway problems.

Guideline Number - 2275.00 rev. 10/17/08

DIABETIC EMERGENCIES

Signs & Symptoms

- Hypoglycemia (Low Blood Sugar): rapid onset, pale sweaty skin, light headedness, confusion, unusual behavior, may appear intoxicated.
- Hyperglycemia (High Blood Sugar): gradual onset, warm dry flushed skin, drowsy to comatose, deep rapid fruity (acetone) smelling breath.

Causes

- Hypoglycemia (Low Blood Sugar): usually the patient has taken insulin but has not eaten, or is expending more energy than usual through exercise, fever, illness
- Hyperglycemia (High Blood Sugar): has not taken insulin, fever, illness

History

- **S**pecific complaint or signs & symptoms
- **A**llergies
- **M**edications
- **P**ast Medical History:
  - Cardiac
  - Respiratory
  - Exposures
  - Recent trauma
  - Drug use
    - (Medical alert tags)
- **L**ast Oral Intake
- **E**vents leading up to the injury or illness

Treatment

Airway
Establish and maintain open airway
Place oral or nasal airway if unconscious

Position
Support unresponsive non-trauma patients in recovery position

Oxygen
Administer Oxygen 10 – 15 L/min by mask
(OR) Assist ventilations as needed

LOC
AVPU, Orientation, GCS

Vital Signs
Respiratory rate, Pulse, B/P & Perfusion status, Blood Glucose level

Medications
If glucose is less than 80 mg/dL
Oral Glucose (OR)
Glucagon (if altered LOC)

Consider ALS Intercept if;

- **Altered LOC & Glucose Level is High**
- **Unable to administer medication**
- **Failure to improve after medication administration**

Reporting
Update dispatch with significant information to be relayed to ALS Crews.

Assist ALS with:
Airway Management
Vital signs
IV set up/start
Variance Med Administration
(If in scope)
Assist with transport

Additional Considerations

- Patient may present combative, protect the patient from harm.
- **NEVER** give oral glucose or any liquid source of sugar to a patient that is unable to protect their own airway. Patient MUST be able to speak and have an intact gag reflex.

Guideline Number - 2300.00 rev. 10/17/08

HEAT EXHAUSTION / HEAT STROKE

Signs & Symptoms

- **Heat Exhaustion:** muscle cramps, weak, dizzy, rapid shallow breathing, weak pulse, heavy perspiration
- **Heat Stroke:** rapid shallow breathing, full rapid pulse, 50% of patients will continue to perspire, dilated pupils, seizures, loss of consciousness or altered mental status

Causes

- **Heat Exhaustion:** muscle cramps, weak, dizzy, rapid shallow breathing, weak pulse, heavy perspiration
- **Heat Stroke:** rapid shallow breathing, full rapid pulse, 50% of patients will continue to perspire, dilated pupils, seizures, loss of consciousness or altered mental status

History

- **S**pecific complaint or signs & symptoms
- **A**llergies
- **M**edications
- **P**ast Medical History:
  - Cardiac
  - Respiratory
  - Exposures
  - Recent trauma
  - Drug use
    - (Medical alert tags)
- **L**ast Oral Intake
- **E**vents leading up to the injury or illness

Treatment

LOC
AVPU

AIRWAY
Establish and maintain open airway
Place oral or nasal airway if unconscious

OXYGEN
Pulse Oximetry reading
Administer Oxygen at 10 – 15 L/min by mask
(OR) Assist ventilations as needed

VITAL SIGNS
Respiratory rate, Pulse, B/P,
Perfusion status & GCS

REMOVE FROM ENVIRONMENT
Remove the patient from the environment

ACTIVE COOLING
If the patient is confused or unconscious
begin active cooling
Remove clothing; apply cool packs
to neck, groin and axilla
Keep the skin wet & cool air moving across it
Give water only if patient can manage
his or her own airway
Do NOT allow the patient to chill or shiver

Consider ALS Intercept If:

- Airway management required
- Shock
- Not improved with initial therapy

Reporting:
Update dispatch with significant information to be relayed to ALS Crews.

Assist ALS with:

- Airway Management
- Vital signs
- IV set up/start
- Transport

Additional Considerations

Anticipate vomiting in the heat exhaustion patient; roll the patient to the side and clear airway.

- An increased body temperature or overheating associated with a change in level of consciousness, such as confusion or unconsciousness, indicates a life-threatening emergency.

Guideline Number – 2325.00 rev. 10/17/08

HYPOTHERMIA

Signs & Symptoms

- (99F-96F) shivering
- (95F-91F) intense shivering, difficulty speaking
- (90F-86F) muscle rigidity, uncoordinated, think slow
- (85F-81F) decreased Level of consciousness, slow pulse & respiration
- (80F-78F) Loss of consciousness, few reflexes, heart rate erratic

Causes

- Conduction-direct transfer of heat from one material to another through direct contact
- Convection-currents of air or water pass over the body
- Radiation-is heat the body sends out in waves
- Evaporation-occurs when the body perspires or gets wet and vaporizes
- Respiration-warmth lost through exhaled air

History

- **S**pecific complaint or signs & symptoms
- **A**llergies
- **M**edications
- **P**ast Medical History:
  - Cardiac
  - Respiratory
  - Exposures
  - Recent trauma
  - Drug use
    - (Medical alert tags)
- **L**ast Oral Intake
- **E**vents leading up to the injury or illness

Treatment

LOC

AVPU

AIRWAY

Establish and maintain an open airway
Place an oral or nasal airway if unconscious

OXYGEN

Administer Oxygen at 10 – 15 L/min by mask
(OR) Assist ventilations as needed

VITAL SIGNS

Respiratory rate, Pulse, B/P,
GCS and perfusion status
Do pulse check for 30-45 seconds
If no pulses start CPR attach AED

REWARM PATIENT

Remove wet garments and cover with blankets. Handle patient gently.
Apply warm packs to neck, armpits, and groin

Frostbite

Frozen limbs should be handled gently, Do NOT rub. Do NOT allow the patient to walk on frozen limb
Cover and immobilize the affected part

Consider ALS Intercept If:

- Cardiac Arrest
- Airway Management Required
- Fails to improve with initial therapy

Reporting:
Update dispatch with significant information to be relayed to ALS Crews.

Assist ALS with:

- Airway Management
- Vital signs
- Splinting
- IV set up/start
- Transport

Additional Considerations

- **See "Cardiac Arrest" guidelines for Hypothermic Arrests.**
- Factors that contribute to hypothermia are alcohol ingestion, underlying illness, overdose or poisoning, trauma, environment - being outdoors and decreased ambient temperature.
- Hypothermia can develop in temperatures well above freezing.
- Perform CPR on ALL hypothermic cardiac arrests and continue until rewarming is complete. Patient outcome cannot be determined until rewarming is complete.
- Active rewarming of frozen parts is seldom recommended in the field.

Guideline Number- 2350.00 rev. 10/17/08

HYPOVOLEMIA / SHOCK

Signs & Symptoms

- Pale
- Diaphoretic (sweaty)
- Rapid breathing
- May or may not have a fast heart rate
- Altered level of consciousness
- Hypotension (low blood pressure) *late sign
- Confusion & anxiety

Causes

- Blood loss (external or internal)
- Severe dehydration

History

- **S**pecific complaint or signs & symptoms
- **A**llergies
- **M**edications
- **P**ast Medical History:
  - Cardiac
  - Respiratory
  - Exposures
  - Recent trauma
  - Drug use
    - (Medical alert tags)
- **L**ast Oral Intake
- **E**vents leading up to the injury or illness

Treatment

LOC
AVPU
SPINAL PRECAUTIONS
Manually stabilize head to immobilize neck
When moving the patient, keep spine aligned
AIRWAY
Establish and maintain open airway
Place oral or nasal airway if unconscious
OXYGEN
Pulse Oximetry
Administer Oxygen at 10 – 15 L/min by mask
(OR) Assist ventilations as needed
CONTROL BLEEDING
Expose injury sites and apply direct pressure
Cover open wounds with sterile dressings
If direct pressure does not control bleeding use pressure points
VITAL SIGNS/LOC
Respiratory rate, Pulse, B/P,
Perfusion status & GCS
Re-assess AVPU, Orientation, GCS
POSITION
Lie patient flat and elevate lower extremities
Keep Patient Warm &
Apply “PASG” Trousers (optional)

Consider ALS Intercept If:

- Greater than 30 minutes from definitive care
- Airway compromise
- No response to initial care

Reporting:
Update dispatch with significant information to be relayed to ALS Crews.

Assist ALS with:

- Airway Management
- Vital signs
- IV set up/start
- Transport

Additional Considerations

- Remember a few of the earliest signs of shock are irritability, anxiety, restlessness, increase in heart rate and/or thirst.
- Low blood pressure is a late sign of shock.

Guideline Number – 2400.00 rev. 10/17/08
OB PREGNANCY/LABOR/DELIVERY

Signs & Symptoms

- Contractions
- Water Broke
- Crowning
- Urge to push or move bowels

Causes

- Pregnancy with labor
- Imminent Delivery

History

- **S**pecific complaint or signs & symptoms
- **A**llergies
- **M**edications
- **P**ast Medical History:
  - Cardiac
  - Respiratory
  - Exposures
  - Recent trauma
  - Drug use
  - (Medical alert tags)
- **L**ast Oral Intake
- **E**vents leading up to the injury or illness

Treatment

PREPARE FOR DELIVERY
Reassure and comfort mother
Provide a clean environment

ASSIST DELIVERY
Support baby's head during delivery
Clear baby's mouth first
then nose w/bulb syringe
(See Care of the Newborn)

UMBILICAL CORD
Place 2 clamps on cord
8 – 10 inches from baby.
Cut cord between clamps.

CONTROL BLEEDING
Gently message abdomen over uterus
Place pad between legs

VITAL SIGNS
Assess respiratory rate, pulse,
B/P and perfusion status
Monitor for signs & symptoms of shock

Consider ALS Intercept If:

- Premature (< 37 weeks) delivery
- Multiple births (twins, etc.)
- Cord Prolapse
- Breech presentation
- Limb presentation
- Shock

Reporting:
Update dispatch with significant information to be relayed to ALS Crews.

Assist ALS with:

- Airway Management
- Vital signs
- IV set up/start
- Transport

Additional Considerations

- ***Do not delay transport for the delivery of the placenta.***
  Placenta should deliver within 20 minutes. Save placenta and keep with patient .Allow placenta to deliver naturally -Do NOT pull on cord
- Some deliveries are abrupt. Do NOT squeeze the baby, but DO provide adequate support. You can prevent an abrupt delivery by using one hand to maintain slight pressure on the baby's head, avoiding direct pressure on the infant's soft spot on the skull.
- Do NOT cut or clamp a cord that is still pulsating.
- After the delivery, dry and wrap the baby, if mother is interested in nursing place the baby to breast this will facilitate uterine contraction. If not, and baby is stable allow mother to hold child.
- For delivery complications (e.g. limb presentation, prolapsed cord, breech presentation, prolonged delivery, heavy bleeding) give **Oxygen** at 10 – 15 L/min by mask, **elevate hips**. Contact medical control and transport.
- Contact Medical Control if complications noted upon your arrival.

Guideline Number - 2425.00 rev. 10/17/08

POISONING – DRUG INGESTION

Signs & Symptoms

- Presenting signs & symptoms will depend on the product, agent or drug the patient contacted, ingested, inhaled and/or injected.
- Environmental cues become extremely important (empty bottles, drug paraphernalia, product containers, lingering smells or odors, dead animals, vomit, pills, spray paint cans).

Causes

- Inhalation
- Ingestion
- Injection
- Skin contact

Examples: Drugs, medications, alcohol, carbon monoxide, household products, plants, or chemicals.

History

- **S**pecific complaint or signs & symptoms
- **A**llergies
- **M**edications
- **P**ast Medical History:
  - Cardiac
  - Respiratory
  - Exposures
  - Recent trauma
  - Drug use
    - (Medical alert tags)
- **L**ast Oral Intake
- **E**vents leading up to the injury or illness

Treatment

LOC

AVPU

AIRWAY

Establish and maintain open airway
Place an oral or nasal airway if unconscious

POSITION

Place non-trauma patient in recovery position

OXYGEN

Pulse Oximetry reading
Administer Oxygen at 10 – 15 L/min by mask
(OR) Assist ventilations as needed

VITAL SIGNS

Assess Respiratory rate, Pulse, B/P & Perfusion status, Document GCS

ASSESS LOC

Re Assess AVPU, GCS
If altered level of consciousness
Obtain a blood glucose level.

CONTACT POISON CONTROL

1-800-222-1222

Consider ALS Intercept If:

- **Airway compromise**
- **Shock**

Reporting:
Update dispatch with significant information to be relayed to ALS Crews.

Assist ALS with:

- Airway Management
- Vital signs
- IV set up/start
- Transport

Additional Considerations

- Anticipate vomiting
- Roll to side and clear airway
- Bring bottles or pills etc with patient to ED for identification
- Drug induced behavior is often unpredictable behavior. Always leave yourself an exit.
- Be suspicious of an MCI involving a number of patients complaining with the same complaints (shortness of breath, drooling, and pin-point pupils, tearing, unable to control bowel or bladder, seizures). If found, GET OUT!

Guideline Number - 2450.00 rev. 10/17/08

RESPIRATORY DISTRESS - COPD

Signs & Symptoms

- Difficulty breathing and speaking
- Cyanosis
- Anxiety, decreased LOC
- Abnormal respiratory rate (<12 or >20)
- Decreased respiratory depth
- Noisy or labored breathing

Causes

- Emphysema
- Tobacco Use
- Medical Non-compliance
- Infection (precipitates attack)

History

- **S**pecific complaint or signs & symptoms
- **A**llergies
- **M**edications
- **P**ast Medical History:
  - Cardiac
  - Respiratory
  - Exposures
  - Recent trauma
  - Drug use
  - (Medical alert tags)
- **L**ast Oral Intake
- **E**vents leading up to the injury or illness

Treatment

LOC

AVPU

AIRWAY

Establish and maintain open airway

POSITION

Place patient at rest in position of comfort
Sitting up if conscious
Recovery position if vomiting or oral secretions

OXYGEN

Pulse Oximetry Reading
Administer Oxygen at 10-15L/min by mask
(OR) Assist ventilations as needed

VITAL SIGNS

Respiratory rate, Pulse, B/P & Perfusion status, GCS, Blood glucose level

MEDICATION

For Wheezing/Bronchospasms
Administer Inhaler or Nebulizer
CPAP guideline

ALS Intercept Considerations

- Unimproved or worsening condition after initial treatment.
- Decreased LOC
- Shock
- Persistent hypoxia

Reporting:
Update dispatch with significant information to be relayed to ALS Crews.

Assist ALS with:

- Airway Management
- Vital signs
- IV set up/start
- Variance Med Administration *(If in scope)*
- Transport

Additional Considerations

- Ensure a good mask to face seal, no air should escape around the mask during BVM ventilations, have suction unit nearby, ensure oxygen is connected and monitor supply.
- Patients who become unconscious should be laid down
- Nasal cannula is reserved for patients with COPD who complain of only mild distress without symptoms

Guideline Number - 2500.00 rev. 10/17/08
SEIZURES

Signs & Symptoms
- Generalized (Full Body) Seizure: uncoordinated muscular activity accompanied by LOC
- Partial or Complex Seizures: abnormal behavior, convulsion of part of the body
- Status Seizure: prolonged generalized (full body) seizure and/or no recovery from postictal state

Causes
- Epilepsy
- Diabetic Problems
- Head Injury
- Brain Tumor or Stroke
- Alcohol/Drug Overdose or Withdrawal
- Infections
- Chemical Exposures

History
- **S**pecific complaint or signs & symptoms
- **A**llergies
- **M**edications
- **P**ast Medical History:
  - Cardiac
  - Respiratory
  - Exposures
  - Recent trauma
  - Drug use
- **L**ast Oral Intake
- **E**vents leading up to the seizure, witnesses, LOC, what seizure looked like, frequency and duration.

Treatment
LOC - AVPU
(During Seizure)
Oxygen
Administer Oxygen (blow-by)
Protect patient from harm
POSITION
Support unresponsive non-trauma patient in recovery position
(After Seizure)
Airway
Position to maintain open clear airway
Roll to side to allow secretions to drain
Oxygen
Obtain Pulse Oximetry reading
Administer Oxygen at 10 – 15 L/min by mask
(OR) Assist ventilations as needed
LOC
Re-assess AVPU, Orientation, GCS
Vital Signs
Respiratory rate, Pulse, B/P,
Perfusion status & Blood glucose level

ALS Intercept Considerations
- Status Seizures
- Airway compromise
- Shock

Reporting:
Update dispatch with significant information to be relayed to ALS Crews.

Assist ALS with:
- Airway Management
- Vital signs
- IV set up/start
- Variance Med Administration
- Transport

Additional Considerations
- Be prepared for the possibility that the patient sustained a traumatic injury during the seizure or that the seizure is a result of trauma. If in doubt use spinal precautions.
- Assess the airway for tongue lacerations or obstructions such as gum. Suction the airway as needed or appropriate.
- As seizure patients awaken, anticipate spitting or spewing of oral secretions and use shielded facemask or safety glasses.
- Status Seizures exist when one seizure is followed by another without a postictal period or a continuous seizure lasting longer than 5 minutes

Guideline Number – 2600.00

Adult "SPECIFIC"

Patient Care Guidelines

Trauma Emergencies

Guideline Number – 2625.00 rev. 10/17/08

BURNS - CHEMICAL (Contact)

Signs & Symptoms

- Irritation or redness to the skin
- Burning to the eyes or other mucous membranes
- Choking or coughing
- Pain at burn site
- Vomiting
- Seizures
- Respiratory distress
- Burning
- SLUDGE Syndrome

Causes

- **Acids/Alkalis:** Wash even after the burning has stopped.
- **Dry Lime:** Brush lime off FIRST then flush with copious amounts of water.
- **Carbolic Acid:** Do NOT mix with water.
- **Sulfuric Acid:** Heat is produced when water is added, flush with copious amounts of water and continue to flush.
- **Hydrofluoric Acid:** Flush with water, burns are delayed.

History

- **S**igns & Symptoms
  Mechanism of Injury
  Exposure duration
  Confined space
  Exposure type
- **A**llergies
- **M**edications
- Past Medical History:
  Respiratory
  Cardiac
  (Medical alert tags)
- **L**ast oral intact
- **E**vents leading up to incident

Treatment

SCENE SAFETY

Wear appropriate PPE.

STOP BURNING PROCESS

Remove clothing, brush off chemicals from skin
Continuously irrigate eyes or skin with water
Do NOT use neutralizers
like vinegar or baking soda

LOC - AVPU

AIRWAY

Establish and maintain an open airway
Place an oral airway if unconscious

OXYGEN

Administer Oxygen at 10 – 15 L/min by mask
(OR) Assist ventilations as needed

VITAL SIGNS

Respiratory rate, Pulse, B/P,
Perfusion status & GCS

COVER WOUNDS

Cover with clean dressing or burn sheet
After washing eyes, cover both eyes
with moistened pads

Refer to *Inhalation Injury Guideline* for Respiratory Symptoms

Consider ALS Intercept if;

- Airway management required
- Respiratory Distress
- Shock

Consider Air Medical direct to Burn Center for

- All acid burns
- >10 BSA burns

Reporting

Update dispatch with significant information to be relayed to ALS Crews.

Assist ALS with:

Airway Management
Vital signs
IV set up/start
Assist with transport

Additional Considerations

- Wear appropriate PPE to protect from exposures, and control flushing to avoid splashing.
- Do NOT contaminate skin that has not been in contact with the chemical.
- Be prepared to address airway concerns.
- Maintain patients body temperature if there is significant body surface area burn.
- You may contact Poison Control 1-800-222-1222

Guideline Number - 2640.00 rev. 10/17/08

BURNS - THERMAL

Signs & Symptoms

- **Superficial Burns**: involves the outer layer of skin, characterized by reddening of the skin and swelling (looks like a sunburn)
- **Partial Thickness Burn:** involves the second layer of skin, there will be intense pain, noticeable reddening, blisters and mottled (spotted) appearance
- **Full Thickness Burns:** all layers of the skin damaged, charred black or brown or dry and white, may have severe pain or no pain at all

Causes

- Flame
- Radiation
- Excessive heat from fire
- Steam
- Hot liquids
- Hot objects

History

- **S**igns & Symptoms
  MOI
  How long exposed
  Confined space
  Facial burns
  Sooty sputum
  Stridor or SOB
  Burn Process Stopped
  Change in Voice
- **A**llergies
- **M**edications
- Past Medical History:
  Respiratory
  Cardiac
  (Medical alert tags)
- **L**ast oral intact
- **E**vents leading up to incident

Treatment

SCENE SAFETY

STOP BURNING PROCESS

Flame: Wet down, smother,
Then remove clothing/jewelry
Semi-solid (grease, tar, wax): Cool with water - do NOT remove from skin.

LOC - AVPU

AIRWAY

Establish and maintain an open airway
Place an oral airway if unconscious

OXYGEN

Administer Oxygen at 10 – 15 L/min by mask
(OR) Assist ventilations as needed

VITAL SIGNS

Assess Respiratory rate, Pulse, B/P & Perfusion status

COVER WOUNDS

Estimate burn area using "rule of palm"
(patient palm = 1%)
Place moist cool clean dressings on burns <20%
Dry, clean dressings on burns >20% to prevent hypothermia. Maintain patient's body temp.

Consider ALS Intercept if;

- **Airway Compromise**
- **Air Medical Directory to Burn Center if;**
- **Greater than 10% BSA 2nd degree**
- **Age < 10 or > 50 y/o**
- **2nd degree greater than 20% BSA**
- **3rd degree greater than 5% BSA**

Reporting
Update dispatch with significant information to be relayed to ALS Crews.

Assist ALS with:
Airway Management
Vital signs
IV set up/start
Assist with transport

Additional Considerations

- Always consider the possibility of an inhalation injury with facial burns, sooty sputum, respiratory distress, voice change and singed facial hair. **BE PREPARED FOR AIRWAY compromise.**
- For burns to hands and feet, be sure to remove rings and jewelry so that swelling does not constrict blood flow. Separate fingers and toes with sterile gauze.
- For burns to eyes, do NOT open eyelids if burned. Apply sterile pad to both eyes to prevent sympathetic movement.

Guideline Number - 2675.00 rev. 10/17/08

ELECTROCUTION

Signs & Symptoms

- Burns where energy enters & exits the body
- Restlessness, irritability, or disorientation
- Muscle tenderness or twitching
- Respiratory difficulties or arrest
- Irregular heart beat or cardiac arrest
- Elevated or low blood pressure (shock)
- Fractures
- Seizures
- Visual disturbances

Causes

- Alternating current
  - low voltage < 1000 volts
  - high voltage is > 1000 volts
- Direct current
- Lightening

History

- **S**igns & Symptoms
  Mechanism of Injury
  Exposure duration
  Current & voltage
  Location of wounds
  Points of contact
  Power source off
  Trauma
- **A**llergies
- **M**edications
- Past Medical History:
  Respiratory
  Cardiac
  (Medical alert tags)
- **L**ast oral intact
- **E**vents leading up to incident

Treatment

SCENE SAFETY

Before entering the scene, ensure the electrical hazard has been eliminated.

STOP BURNING PROCESS

Ensure the power source has been turned off

SPINAL PRECAUTIONS

Manually stabilize head to immobilize neck
When moving patient keep the spine aligned

LOC - AVPU

AIRWAY

Establish and maintain an open airway
Place an oral airway if unconscious

OXYGEN

Administer Oxygen at 10 – 15 L/min by mask
(OR) Assist ventilations as needed

VITAL SIGNS

Respiratory rate, Pulse, B/P &
Perfusion status & GCS

COVER WOUNDS

Cover with sterile dressing or burn sheet

SPLINT FRACTURES

Splint above & below fracture site
(See "Fractures" Protocol)

Consider ALS Intercept if;

- Cardiac Arrest
- Respiratory Arrest
- Shock
- Irregular pulse
- Multiple Trauma
- Entrance and exit wounds from high voltage current

Reporting

Update dispatch with significant information to be relayed to ALS Crews.

Assist ALS with:

Airway Management
Vital signs
IV set up/start
Assist with transport

Additional Considerations

- Make certain that you and the patient are in a SAFE ZONE.
- Electricity may cause severe injuries with little visible damage.
- Direct attention to monitoring pulse, treating shock and stabilizing injuries.
- All apneic, pulse less patients should be treated according to the "Cardiac Arrest/AED Protocol"
- In lightning strikes if multiple casualties treat cardiac arrest victims first.

Guideline Number - 2700.00 rev. 10/17/08
HEAD and SPINE INJURIES

Signs & Symptoms
- May have few signs or symptoms, just mechanism of injury alone
- **Head Injuries:** may be unconscious, unequal pupils, irregular breathing, drainage from ears or nose, posturing with arms flexed inward or outward
- **Spinal Injuries**: numbness & tingling arms/legs, inability to feel or move extremities, pain, difficulty regulating temperature, abnormal response to pain, urinating on self, sustained penile erection

Causes
- Trauma

History
- **S**igns & symptoms: Mechanism of Injury CMS, GCS, Vomiting/LOC DCAP-BTLS
- **A**llergies
- **M**edications
- **P**ast Medical History: Seizures Cardiac/CVA Brain Injuries Paralysis Cancer Arthritis Osteoporosis Trauma

(Medical Alert tags)
- **L**ast oral intake
- **E**vents leading up to incident.

Treatment

SPINAL PRECAUTIONS
Manually stabilize cervical spine
When moving patient keep spine aligned

LOC
AVPU

AIRWAY
Establish and maintain open airway
Place oral or nasal airway if unconscious

OXYGEN
Pulse Oximetry reading
Administer Oxygen 10 – 15 L/min by mask
(OR) Assist ventilations as needed

VITAL SIGNS
Respiratory rate, Pulse, B/P,
Perfusion status & Glasgow Coma Scale

ASSESS CMS
Check Circulation, Motion & Sensation (CMS) in extremities before and after back boarding the patient

BACKBOARD

Consider ALS Intercept If:
- Neurological Deficit
- Airway compromised
- Shock

Reporting:
Update dispatch with significant information to be relayed to ALS Crews.

Assist ALS with:
- Airway Management
- Vital signs
- IV set up/start
- Transport

Additional Considerations
- Anticipate vomiting. If vomiting occurs protect the spine while rolling the immobilized patient as a unit to the side.
- **Serious head injuries may result in combativeness or unconsciousness as a result of brain swelling. Other signs and symptoms include: unequal pupils, irregular respirations, posturing, and fluid in ears or nose. Treat with Oxygen, assist respirations as needed.**

Guideline Number - 2725.00 rev. 10/17/08

INHALATION INJURY (Toxic Gas)

Signs & Symptoms

- Respiratory Distress/Burning
- Choking or coughing
- Irritation or redness to the skin
- Burning to the eyes or other mucous membranes
- Vomiting
- Seizures
- SLUDGE syndrome

Causes

- **Toxic Gas Exposure (Chorine, Sarin, Mustard Gas)**
- **Household Chemical Exposures.**

History

- **S**igns & Symptoms
  Mechanism of Injury
  Exposure duration
  Confined space
  Exposure type
- **A**llergies
- **M**edications
- Past Medical History:
  Respiratory
  Cardiac
  (Medical alert tags)
- **L**ast oral intact
- **E**vents leading up to incident

Treatment

SCENE SAFETY
Wear appropriate PPE.

LOC
AVPU

AIRWAY
Establish and maintain an open airway
Place an oral airway if unconscious

OXYGEN
Pulse Oximetry (treat regardless of reading)
Administer Oxygen at 10 – 15 L/min by mask
(OR)
Assist ventilations as needed

VITAL SIGNS
Respiratory rate, Pulse, B/P,
Perfusion status & GCS

SECONDARY INJURY
Treat Chemical skin exposure per the
Burns – Chemical Guideline
Contact Poison Control
1-800-222-1222

Consider ALS Intercept if;

- Airway management required
- Respiratory Distress
- Shock
- Voice changes

Reporting
Update dispatch with significant information to be relayed to ALS Crews.

Assist ALS with:
Airway Management
Vital signs
IV set up/start
Assist with transport

Additional Considerations

- Wear appropriate PPE to protect yourself from exposures.
- Be prepared to address airway concerns.
- Notify Hospital early if concerns of Organophosphate/Nerve Agent exposure.

Guideline Number – 2775.00 rev. 10/17/08

Traumatic Injury - Fractures, Dislocations & Sprains

Signs & Symptoms

- Deformity
- Pain
- Swelling
- Discoloration

Causes

- Trauma
- Disease States (osteoporosis, cancers)

History

- **S**pecific complaint or signs & symptoms
- **A**llergies
- **M**edications
- **P**ast Medical History:
  - Cardiac
  - Respiratory
  - Exposures
  - Recent trauma
  - Drug use
  - (Medical alert tags)
- **L**ast Oral Intake
- **E**vents leading up to the injury or illness

Treatment

SPINAL PRECAUTIONS

LOC

AVPU

AIRWAY, BREATHING, CIRCULATION

STABILIZE INJURY

Stabilize in position found until ready to splint

EXPOSE INJURY SITE

CONTROL BLEEDING

Apply direct pressure if uncontrolled use pressure points

Apply sterile dressings to open wounds

ASSESS CMS

Assess Circulation, Motion & Sensation before and after splinting,

if pulseless or cold do NOT splint

SPLINT FRACTURES

Immobilize joint above/below fracture site

Splint joints in position found

Straighten midshaft fractures before splinting

Apply splint, ice packs and elevate extremity.

VITAL SIGNS

Respiratory rate, Pulse, B/P,

Perfusion Status & GCS

Consider ALS Intercept if:

- Pain Management required
- Prolonged Extrication
- Multiple Trauma
- CMS compromise
- Shock

Reporting:

Update dispatch with significant information to be relayed to ALS Crews.

Assist ALS with:

- Airway Management
- Vital signs
- Splinting
- IV set up/start
- Transport

Additional Considerations

- If there is a possible cervical spine injury DO NOT tie a sling around the patient's neck.
- Consider traction splint for isolated mid-shaft femur fractures only.
- If there is a pulse, motor or sensory problem with an injured limb, you should make one (1) attempt to regain pulses.

Appleton MN / Appleton Ambulance Service
EMS STANDARD OPERATING PROCEDURES
Patient Care Guidelines

Guideline Number – 2800.00 rev. 10/17/08
Traumatic Injuries – Wound Care

Signs & Symptoms

- **Closed Wounds** (contusion, edema, discoloration, deformity, pain, decreased sensation, hematoma)
- **Open Wounds** (bleeding, abrasion, laceration, puncture or penetration, avulsion, amputation)

Causes

- **Closed Wounds** (blunt trauma or crushing injuries)
- **Open Wounds** (any sharp object, penetration via impaled objects, knives or firearms, spontaneous rupture of blood

History

- **S**igns & Symptoms DCAP-BTLS
- **A**llergies
- **M**edications Blood Thinners Blood Pressure
- **P**ast Medical History: Bleeding disorders Hypertension Cardiac Problems Respiratory Last Tetanus Shot
- **L**ast Oral Intake
- **E**vents leading up to injury or incident

Treatment

Priorities Remain: Spinal Precautions, LOC, Airway, Breathing, Circulation, Control of Bleeding and Oxygen Administration.

WOUNDS

1. **EXPOSE** injury site
2. **COVER** open wounds w/dressings
3. **CONTROL BLEEDING** w/direct pressure.

If bleeding persists, continue direct pressure, consider elevation, pressure dressing and pressure points

AMPUTATIONS

1. CONTROL BLEEDING
2. **COVER STUMP** with saline soaked dressing
3. **WRAP AMPUTATED PART** in gauze
4. **MOISTEN GAUZE** with saline
5. Place in **PLASTIC BAG**
6. Place **ON ICE**, keep cool but do NOT freeze

IMPALED OBJECTS

1. **IMMOBILIZE OBJECT** in place, do NOT remove

Exception: objects impaled in cheek may be removed to ensure a patent airway. Be ready for bleeding inside mouth.

CHEST INJURIES

Sucking Chest Wound: (look & feel for subcutaneous air under skin)

1. **COVER w/OCCLUSIVE** dressing
2. **MONITOR** signs of increased respiratory distress
3. If present LIFT one side of dressing
4. Allow AIR TO ESCAPE

Flail Chest:

1. Manually **STABILIZE** flail segment

Consider ALS Intercept If:

- **Uncontrolled Bleeding**
- **Amputations**
- **Flail Chest**
- **Shock**
- **Airway Compromise**
- **Penetrating trauma to chest/back/abdomen**

Reporting:

Update dispatch with significant information to be relayed to ALS Crews.

Assist ALS with:

- Airway Management
- Vital signs
- Bandaging
- IV set up/start
- Transport

Additional Considerations

- Manual stabilization of flail chest might include the palm of a hand, a folded towel or the use of pillow.
- Signs of increased respiratory distress include decreased LOC, cyanosis, and tracheal deviation, diminished or absent breath sounds.
- Monitor for signs and symptoms of shock.

Guideline Number – 3000.00

MEDICATION ADMINISTRATION

Guideline Number- 3025.00 rev. 10/17/08

Aspirin

Medication name:

- Aspirin, ASA, Ecotrin, Acetylsalicylic acid

Actions:

- Impedes clotting by blocking prostaglandin synthesis, which prevents formation of the platelet-aggregating substance thromboxane A2

Indications:

- Provider Impression Chest Pain/ Discomfort of suspected Cardiac origin.

Contraindications: (do **NOT** give if)

- Hypersensitivity to drug. Patients with active ulcer disease

Dose:

- Give 324 mg of chewable ASA give within minutes of arrival.

Side Effects:

- Use with caution in patients with GI lesions, impaired renal function, hypoprothrombinemia, vitamin K deficiency, thrombocytopenia, or severe hepatic impairment.

Guideline Number- 3050.00 rev. 10/17/08

Benadryl (NOT APPROVED FOR AAS)

(Diphenhydramine hydrochloride)

Medication name:

- Benadryl, Benadryl 25, Benadryl Allergy, Caladryl

Actions:

- Antihistamine

Indications:

- Provider Impression of Anaphylaxis / Allergic Reaction

Contraindications: (do **NOT** give if)

1. Hypersensitivity to diphenhydramine
2. Newborns or premature infants
3. Nursing mothers

PRECAUTIONS:

1. May cause drowsiness, especially in the elderly
2. Use with caution in patients with glaucoma
3. May potentiate the effects of other sedative and psychiatric agents, especially the MAO inhibitors, with which it should not be used.

Dose:

1. Adult Dose: 25-50 mg ORALLY
   Note: Liquid preparation is preferred over tablets.

***Side Effects:*:**

COMMON

1. Dizziness
2. Dryness of mouth, nose, or throat
3. Sedation, sleepiness
4. Thickening of bronchial secretions

SERIOUS

1. Anaphylaxis

ADMINISTRATION:

1. In adult patients presenting signs and symptoms of anaphylaxis and under the direction of medical control, administer 25 mg of Benadryl ORALLY.
2. In pediatric patients presenting signs and symptoms of anaphylaxis and under the direction of medical control, administer 1mg/kg (1 kg = 2.2 lbs) of Benadryl ORALLY.

- **If service is unable to contact medical control and signs and symptoms of anaphylaxis are severe, give 25 mg ORALLY (adult) or 1mg/kg (1 kg = 2.2 lbs) ORALLY (pediatric age 1-12, if under age 1 contact medical control for direction). Continue to attempt contact with medical direction.**
- **Consider ALS intercept**

Guideline Number – 3100.00

Beta-Agonist Medications

Guideline Number - 3125.00 rev. 10/17/08

Beta-Agonist Medication / Metered Dose Inhaler

(OPTIONAL) Requires EMSRB Variance Approval per Minnesota Rules 4690.8300 SPECIFIC VARIANCES Subpart 7

Medication Name: Albuterol, Proventil, Ventolin, Metaproterenol, Alupent, Metaprel, Xopenex

Actions: dilates bronchioles

Indications:
Provider Impression:

- Asthma
- Respiratory Distress - COPD
- Allergic Reaction
- CHF/Pulmonary Edema

Contraindications:

- Patient is unable to use the device (not alert or unable to be coached)

Dose: 1 or 2 inhalations every 10 minutes. **Contact medical control if not improved after 2nd dose.**

Metered Dose Inhaler Administration:

1. Check right medication, expiration date.
2. Use a spacer.
3. Assure the inhaler is at room temperature.
4. Shake canister vigorously.
5. Ask patient to exhale deeply and place lips around inhaler opening.
6. Ask patient to inhale slowly and deeply as they depress the canister.
7. Have the patient hold their breath for as long as comfortably possible.
8. Replace oxygen mask on patient.
9. Repeat second inhalation as needed in approximately one minute.

Side Effects: increases pulse rate, causes tremors or nervousness

Ongoing Assessment: Continue to assess and monitor airway, breathing, circulation and level of consciousness. Continue high-flow oxygen; take frequent vital signs (pulse, respirations, and blood pressure). Observe for deterioration and assist patient with additional puffs of inhaler and/or be prepared to assist ventilations.

Consider ALS Intercept if not improved after 2nd dose.

Guideline Number- 3140.00 rev. 10/17/08

Beta-Agonist Medication / Nebulizer

(OPTIONAL) Requires EMSRB Variance Approval per Minnesota Rules 4690.8300 SPECIFIC VARIANCES Subpart7

Medication Name: Albuterol, Proventil, Ventolin, Metaproterenol, Alupent, Metaprel, Xopenex

Actions: dilates bronchioles

Indications:
Provider Impression:

- Asthma
- Respiratory Distress - COPD
- Allergic Reaction
- CHF/Pulmonary Edema

Contraindications:

- Patient is unable to use the device (not alert or unable to be coached)
- Hypersensitivity to Albuterol, Proventil, Ventolin, Metaproterenol, Alupent, Metaprel, Xopenex

Dose:
Ages 1 and up - 1 unit dose every 10 minutes from the completion of previous dose as needed.
CONTACT MEDICAL CONTROL if not improved after second administration.

Using a nebulizer

- Put the liquid medication in the chamber.
- Attach oxygen tubing to the chamber and set the flow rate at 6 – 8 lpm.
- Observe the medication mist coming from the device.
- Have the patient seal their lips around the mouthpiece and breathe deeply or attach the face mask to the chamber and administer via the mask.
- Instruct the patient to hold their breath for a few seconds after breathing if possible.
- Continue until the medication is gone from the chamber.
- Reassess the patient's level of distress and vital signs.
- Document the patient's response to the medication.

Observe for deterioration and assist patient with additional puffs of inhaler and/or be prepared to assist ventilations.

- Monitor the patients level on consciousness closely as decreasing level of consciousness is often the first sign of impending respiratory failure.

Guideline Number - 3175.00 rev. 10/17/08

Dextrose –Oral (Glutose)

Medication name:

- Dextrose – Oral, Glutose, Glucosa – Oral, Insta-Glucose

Indications:

- Provider Impression Hypoglycemia
- Provider Impression Altered Level of Consciousness (Blood Glucose Level not obtainable)

Contraindications: (**do NOT** give if)

- Any patient who cannot control their own airway.

Dose:

- Give Glutose 25 grams orally (1 tube).

PRECAUTION:

1. Airway must be carefully maintained.

ADMINISTRATION:

1. Perform blood glucose measurement.
2. Administer 1 tube (Glutose = 25 gm per tube, Insta-Glucose = 31 gm per tube) in downside cheek of log-rolled patient.
3. Administer slowly, monitoring absorption. Maintain adequate airway.
4. Repeat blood glucose measurement.
5. Notify medical control that oral glucose has been given.

PEDIATRIC CONSIDERATIONS:

1. The initial dosage is usually one half of the adult dose.

Guideline Number – 3200.00 rev. 10/17/08

EPINEPHRINE AUTO INJECTOR

(OPTIONAL) Requires EMSRB Variance Approval per Minnesota Rules 4690.8300 SPECIFIC VARIANCES Subpart 7

Medication Name:
Epinephrine, Adrenaline, EpiPen or EpiPen Jr.

Actions:
Dilates the bronchioles and constricts blood vessels.

Indications:
Provider Impression Anaphylaxis

Contraindications:
None when used in life threatening situation.

Dose:
Adult- One auto-injector (0.3 mg) repeat in 10 minutes if not improved
Infant & Children One Junior auto-injector (0.15 mg) repeat in 10 minutes if not improved
Contact medical control ASAP if EpiPen used

Epi-Pen Administration:

* Remove cap from auto-injector.
* Place tip of auto-injector against patient's thigh:
  Lateral (side) portion of thigh midway between waist and knee.
* Push the injector firmly against the thigh until the injector activates.
* Hold the injector in place until the medication is injected (at least 10 sec.)
* Dispose of used auto-injector in the biohazard "sharps" box inside the ambulance.

Side Effects: Increased heart rate, pallor, dizziness, chest pain, headache, nausea, vomiting, excitability, and/or anxiety.

Ongoing Assessment: Continue to assess and monitor airway, breathing and circulation. Continue high-flow oxygen; take frequent vital signs (pulse, respirations, blood pressure). Treat for shock as needed and be prepared to provide life support (BVM, CPR, and AED).

Consider ALS Intercept if EpiPen used as patient may worsen suddenly.

Guideline Number - 3225.00 rev. 10/17/08

Glucagon, IM

(OPTIONAL) Requires EMSRB Variance Approval per Minnesota Rules 4690.8300 SPECIFIC VARIANCES Subpart7

Medication Name: Glucagon, GlucaGen

Actions:
Raises blood glucose level by promoting catalytic depolymerization of hepatic glycogen to glucose. Induces liver glycogen breakdown, releasing glucose from the liver.

Indications:
Provider Impression:

- Diabetic Hypoglycemia
  - Blood Glucose Level or 70 mg/dL with Symptoms
- Altered Level of Consciousness
  - Suspected Hypoglycemia in the absence of a blood glucose reading.

Contraindications:

- Known hypersensitivity to drug, and in patients with pheochromocytoma or with insulinoma (tumor of pancreas).

Dosage: 1 mg IM for patient s over 22 lbs.

Glucagon Administration:

1. Dissolve the lyophilized glucagon in the accompanying dilutent
2. Glucagon should not be used at concentrations greater than 1 mg/mL (1 unit / mL).
3. Glucagon solutions should not be used unless they are clear and of a water-like consistency.
4. For Adults and children weighting more than 22 lbs give 1 mg (1 unit) by Intra-muscular injection.
5. **Contact medical control for additional dosing.**

Side Effects: Hyperglycemia (excessive dosage), nausea and vomiting hypersensitivity reactions (anaphylaxis, dyspnea, hypotension, rash), increased blood pressure, and pulse; this may be greater in patients taking beta-blocker medications.

Precautions: Give with caution to patients that have low levels of releasable glucose (e.g., adrenal insufficiency, chronic hypoglycemia, and prolonged fasting).

Guideline Number- 3275.00 rev. 10/17/08

NITROGLYCERIN

(OPTIONAL) Requires EMSRB Variance Approval per Minnesota Rules 4690.8300 SPECIFIC VARIANCES Subpart7

Medication Name: **Nitroglycerin, Nitrostat, Nitrolingual, Nitrodur**

Actions: Relaxes or dilates blood vessels and decrease the workload of the heart.

Indications:
Provider Impression:

- Chest Pain/Discomfort of Suspected Cardiac Origin
- CHF/ Pulmonary Edema

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Contraindications:

- Patient's systolic blood pressure is less than 110.
- The patient has taken medications for Erectile Dysfunction within the past 48 hours.
- Hypersensitivity to Nitroglycerin.

Dose: (Ages 18 and over)

- One tablet or spray Sublingual every 5 minutes until symptoms relieved.
- Stop if systolic blood pressure drops below 110mm/Hg.

NOTE: Contact Medical Control if not improved after 3 doses.

Nitroglycerin Administration:

1. Make sure Nitroglycerin is indicated and the patient has no contraindications.
2. Take blood pressure.
3. Ask patient to lift tongue and place one tablet or spray dose under tongue (while wearing gloves) or have patient place tablet or spray under tongue.
4. Have patient keep mouth closed with tablet under tongue (ask them not to swallow) until the tablet or spray is dissolved.
5. Repeat a blood pressure and reassess the patient's symptoms.

Side Effects: Hypotension (low blood pressure), headache, pulse rate change.

Ongoing Assessment: Continue to assess and monitor airway, breathing, and circulation. Continue high-flow oxygen; take frequent vital signs (pulse, respirations, and blood pressure).

Guideline Number- 3300.00 rev. 10/17/08

OXYGEN

ACTION: Increases arterial oxygen tension (saO2) and hemoglobin saturation

INDICATIONS: LOW CONCENTRATION (24 – 44%):
1. Patients with pulse Oximetry readings >=92%

INDICATIONS: HIGH CONCENTRATION (60-≈100%):
1. Smoke, carbon monoxide, or toxic gas inhalation.
2. Trauma or suspected blood loss.
3. Hypoxia (pulse Oximetry readings of <92%) from any cause.
4. Respiratory distress, poor capillary refill or other indications of poor oxygenation.
5. Unresponsive patient.
6. Obstetric patients with known or suspected complications.

CONTRAINDICATIONS:
1. None in the prehospital setting.

PRECAUTIONS:
1. This guideline refers to spontaneously breathing and adequately ventilating patients only.
2. High concentration Oxygen in some cases (emphysema and asthma) may depress the respiratory drive; be prepared to assist ventilations, but don't allow patients to become severely hypoxic for fear of respiratory arrest.
3. Agitation or restlessness can be a sign of hypoxia.
4. Do not use in the presence of open flames.
5. In the treatment for anxiety; hyperventilation should be treated with reassurance and coaching to slow breathing. If the possibility of another underlying cause exists (i.e. pulmonary embolus, asthma, heart attack) then the patient should be treated with oxygen. DO NOT treat any patient by having them breathe into a paper bag or Oxygen mask that is not supplied with Oxygen.

ADVERSE REACTIONS/SIDE EFFECTS:
1. Non-humidified oxygen can dry mucous membranes, but humidified Oxygen is not indicated in the prehospital setting.

ADMINISTRATION:
1. Deliver low concentrations via nasal cannula @ 1-6 lpm
2. Deliver high concentrations via non-rebreather mask @ 6-15 lpm
3. Attempt to obtain and document pulse Oximetry readings before and during Oxygen therapy.

SPECIAL NOTES: Always treat your patient based on signs and symptoms. Do not rely on the pulse Oximetry reading to determine appropriate care. If Oximetry is unavailable, patients should receive high concentration oxygen based on assessment indications.

Guideline Number – 4000.00

EQUIPMENT & PROCEDURES

Guideline Number – 4025.00 rev. 10/17/08

BAG-VALVE MASK

Bag-Valve-Mask (BVM)-consists of a self-inflating bag, one-way valve, face mask, and oxygen reservoir. It should always be connected to 15 liters of oxygen, allowing for the oxygen reservoir to fill first and then when squeezed capable of delivering 100% oxygen. The most difficult part of delivering BVM ventilation's is obtaining an adequate face mask seal. Therefore it is strongly recommended that BVM artificial ventilation be performed by two rescuers.

1. **Two-person BVM ventilation-NO Trauma Suspected:**
   a. Open the patient's airway using the HEAD-TILT, CHIN-LIFT TECHNIQUE. Suction and insert an airway adjunct (oral or nasal).
   b. Select the correct bag size.
   c. Kneel at the patient's head. Position thumbs over the top half of the mask, index and middle fingers over the bottom half.
   d. Place the apex or top of the triangular mask over the bridge of the patient's nose, then lower the mask over the mouth and upper chin. If the mask has a large, round cuff surrounding a ventilation port, center the port over the patient's mouth.
   e. Use ring and little fingers to bring the patient's jaw up to the mask and maintain the head-tilt, chin-lift.
   f. With the other hand apply slight pressure over the cricoid cartilage to prevent air entering the stomach (Sellick Maneuver) Avoid pressure on the carotid artery.
   g. The second rescuer should connect bag to mask, if not already done. While you maintain the mask seal, the second rescuer should squeeze the bag with two hands until the patient's chest rises. If using a BVM with manometer do not exceed 30 cmH20 of pressure.
   h. The second rescuer should release pressure on the bag and let the patient exhale passively. While this occurs the bag is refilling from the oxygen source.

2. **Two-person BVM ventilation: Trauma Suspected:**
   a. Open the patient's airway USING THE JAW-THRUST TECHNIQUE. Suction and insert an oral airway. (May utilize the Head tilt chin lift if the airway cannot be opened by the jaw-thrust technique.)
   b. Select the correct BVM size.
   c. Kneel at the patient's head. Place thumbs over the nose portion of the mask and place your index and middle fingers over the portion of the mask that covers the mouth.
   d. Use your ring and little fingers to bring the jaw upward, toward the mask, WITHOUT TILTING THE HEAD OR NECK.

(Continued)

Guideline Number – 4025.00 rev. 10/17/08

BAG-VALVE MASK

(Continued)

2. Two-person BVM ventilation: Trauma Suspected (continued):

e. With the other hand apply slight pressure over the cricoid cartilage to prevent air entering the stomach (Sellick Maneuver) Avoid pressure on the carotid artery.

f. The second rescuer should squeeze the bag to ventilate the patient as described above for the non-trauma patient.

NOTE: If the airway cannot be opened by the Jaw thrust technique, revert to the Head tilt chin lift technique as a last resort.

3. One-person BVM ventilation:

a. Position yourself at the patient's head and establish an open airway. Suction and insert an airway adjunct as necessary.

b. Select the correct BVM size. Position the mask on the face as described above.

c. Form a "C" around the ventilation port with thumb and index fingers. Use the middle, ring and little fingers under the patient's jaw to hold the jaw to the mask.

d. With your other hand, squeeze the bag. The squeeze should be to the point at which you see the chest rise. If using a BVM with manometer do not exceed 30 cmH20 of pressure.

e. Release pressure on the bag and let the patient exhale passively. While this occurs the bag is refilling from the oxygen source.

4. **If the chest does not rise and fall during BVM ventilation**:

a. Reposition the head.

b. Check for escape of air around the mask and reposition fingers and mask.

c. Check for airway obstruction or obstruction in the BVM system.

d. Re-suction the patient if necessary. Insert an airway adjunct if not already done.

e. If none of the above methods work, use a pocket mask with a one-way valve.

f. When ventilating squeeze slowly and gently until you get chest rise.

5. **Artificial Ventilation of a Stoma Breather*:***

a. Clear any mucous plugs or secretions from the stoma.

b. Leave the head and neck in a neutral position, as it is unnecessary to position the airway prior to ventilation's in a stoma breather.

c. Use a pediatric size mask to establish a seal around the stoma.

d. Ventilate at the appropriate rate for the patient's age.

If unable to artificially ventilate through the stoma, consider sealing the stoma and attempting artificial ventilation through the mouth and nose.

Guideline Number – 4075.00 rev. 10/17/08
CPR/Automatic External Defibrillator (AED)

General Considerations

1. **CPR comes first.** Determine unresponsiveness, open airway and begin CPR.
2. Chest compressions at 100/minute, allowing complete chest recoil by not resting any weight of the rescuer on the patient's chest.
3. Do not interrupt CPR except when absolutely necessary

(Continued on next page)

Guideline Number – 4075.00 rev. 10/17/08

CPR/Automatic External Defibrillator (AED)
(Continued)

4. OP or NP airway required during BVM ventilation
5. Ventilate at no more than 10 breaths per minute (1 breath per 5-6 seconds)
6. 1 cycle of CPR is 30 compressions and 2 breaths until **Non-visualized airway (Combitube, King LT)** inserted or patient intubated THEN deliver 1 breath every 12 compressions but do not stop compressions for breath to be delivered.
7. Attach **ResQpod** to **Non-visualized airway (Combitube, King LT)**
8. A pulse check may be taken during rhythm analysis as long as it does not interfere with the analysis.
9. All contact with patient must be avoided during delivery of shock(s).
10. Automated external defibrillation is not used in cardiac arrest in children under 1 year of age. It is preferable to use pediatric pads for patients from one year up to the onset of puberty.
11. Preferred placement of AED pads is right upper chest and left lower chest wall
12. Call for ALS backup immediately if available.
13. Preparation for transport of patient should begin as staffing allows.
14. Assuming no on-scene ALS, the patient should be transported by the time one of the following occurs:
    a. The patient regains a pulse.
    b. Two shocks are delivered.
    c. The machine gives two consecutive messages (separated by two minute of CPR) that no shock is advised.
15. If automated external defibrillators cannot analyze rhythm properly when emergency vehicle is in motion, stop vehicle.

Operational Steps- Multiple Rescuers

1. Stop CPR if in progress
2. Verify pulselessness and apnea
3. **If no by-stander CPR:** Have partner resume CPR, perform 2 minutes of CPR before defibrillation
4. Turn on defibrillator power and attach device
5. Stop CPR
6. Clear patient

(Continued on next page)

Guideline Number – 4075.00 rev. 10/17/08

CPR/Automatic External Defibrillator (AED)
(Continued)

7. Initiate analysis of rhythm. If AED advises shock:
    a. Deliver shock
    b. Perform 2 minutes of CPR
    c. Insert **Non-visualized airway (Combitube, King LT)** and attach **ResQPOD**
    d. Check Pulse and Analyze Rhythm
    e. If machine advises shock, deliver second shock
    f. If no pulse perform 2 minutes of CPR
    g. Check Pulse and Analyze Rhythm
8. If pulse returns, check breathing and ensure adequate ventilation.
9. If no pulse
    a. Resume CPR for two minutes
    b. Prepare pt for transport; begin transport as soon as ready.
    c. Repeat steps 6 – 8 enroute. Deliver no more than four shocks without contacting Medical Control for orders.
10. If, after any rhythm analysis, the machine advises no shock, check pulse.
    a. If pulse is present, check breathing, and ensure adequate ventilation.
    b. If no pulse, resume CPR for two minutes and repeat rhythm analysis. If AED advises shock, repeat steps 6 - 8.
    c. If no shock continues to be advised, resume CPR for additional 2 minutes and analyze rhythm again.
    d. If no shock continues to be advised, resume CPR

Operational Steps - Single rescuer

1. Verify pulselessness and apnea.
2. Turn on defibrillator power and attach device while beginning narrative.
3. Clear patient

(Continued on next page)

Guideline Number – 4075.00 rev. 10/17/08

CPR/Automatic External Defibrillator (AED)
(Continued)

4. Initiate analysis of rhythm. If AED advises shock:
    a. Deliver shock
    b. Perform 2 minutes of CPR
    c. Check pulse and Analyze Rhythm
    d. If machine advises shock, deliver second shock
    e. Perform 2 minutes of CPR
    f. Check Pulse and Analyze Rhythm
    g. If machine advises shock, deliver third shock
    h. Perform 2 minutes of CPR
    i. Check pulse and Analyze Rhythm
5. If pulse returns, check breathing and ensure adequate ventilation.
6. If no pulse returns continue CPR until ALS arrives
7. If, after any rhythm analysis, the machine advises no shock, check pulse.
    a. If pulse is present, check breathing, and ensure adequate ventilation.
    b. If no pulse, resume CPR for two minutes and repeat rhythm analysis. If AED advises shock, repeat steps 4 and 5
    c. If no shock continues to be advised, resume CPR for additional 2 minute and analyze rhythm again.
    d. If no shock continues to be advised, resume CPR until help arrives

Post Arrest Care

In the event that return of spontaneous circulation occurs the initial objectives of post-resuscitation care are to

- Optimize cardiopulmonary function and systemic perfusion, especially perfusion to the brain
- Transport the victim of out-of-hospital cardiac arrest hospital emergency department (ED) and continue an appropriately equipped critical care unit
- Try to identify the precipitating causes of the arrest.
- Institute measures to prevent recurrence
- Institute measures that may improve long-term, neurologically intact survival

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Guideline Number – 4075.00 rev. 10/17/08

CPR/Automatic External Defibrillator (AED)
(Continued)

Airway

- Ensure Non-visualized Airway/ET is properly secured and patient is easy to ventilate
- Assess pulse Oximetry continuously
- Maintain end-tidal CO2 between 30-40 mmHg. If less than 30 slow ventilation rate. If greater than 40 increase ventilation rate.

Circulation

- Assess presence of pulses and attempt to obtain blood pressure
- If hypertensive monitor frequently

Neurological

- Assess AVPU

Metabolic

- Obtain blood glucose and administer **Glucagon** if less than 80

Temperature Control

- Do not attempt to warm patient unless hypothermia is the suspected cause of the arrest
- Apply Ice Packs to axial, groin, and neck

Transport

- **Transport to nearest facility**

Guideline Number - 4100.00 rev. 10/17/08

CONTINUOUS POSITIVE AIRWAY PRESSURE (CPAP)

Continuous Positive Airway Pressure has been shown to rapidly improve vital signs, gas exchange, and the work of breathing, decrease the sense of dyspnea, and decrease the need for endotracheal intubation in patients who suffer respiratory distress from asthma, COPD, pulmonary edema, CHF, and pneumonia. In patients with CHF, CPAP improves hemodynamics by reducing preload and afterload. CPAP is not available by Appleton Ambulance at this time.

INDICATIONS:

Any patient who is complaining of shortness of breath for reasons other than trauma and:

- Is awake and able to follow commands
- Is over 12 years old and is able to fit the CPAP mask
- Has the ability to maintain an open airway.
- A respiratory rate greater than 25 breaths per minute
- Has a systolic blood pressure above 100mmHg
- Uses accessory muscles during respiration's
- Sign and Symptoms consistent with asthma, COPD, pulmonary edema, CHF, or pneumonia

CONTRAINDICATIONS:

- Patient is in respiratory or cardiac arrest.
- Patients suspected of having a pneumothorax (unequal breath sounds)
- Patients at risk for vomiting.
- Patient has a tracheostomy.

PRECAUTIONS:

- ***Use care if patient:***
    - *Has impaired mental status and is not able to cooperate with the procedure*
    - Has failed at past attempts at noninvasive ventilation
    - Has active upper GI bleeding or history of recent gastric surgery
    - Complains of nausea or vomiting

(Continued next page)

Guideline Number - 4100.00 rev. 10/17/08

CONTINUOUS POSITIVE AIRWAY PRESSURE (CPAP)

(Continued)

PRECAUTIONS (continued):

- Has inadequate respiratory effort
- Has excessive secretions
- Has a facial deformity that prevents the use of CPAP

- If utilizing CPAP with a portable O2 tank, pay particular attention to oxygen levels as small tanks can deplete quickly. When in the ambulance it is preferable to utilize the on-board oxygen.

PROCEDURE:

1. **EXPLAIN THE PROCEDURE TO THE PATIENT**
2. Ensure adequate oxygen supply to ventilation device (100%)
3. Place the patient on continuous pulse Oximetry.
4. Place the delivery device over the mouth and nose
5. Secure the mask with provided straps or other provided devices
6. Use 5 cm H20 PEEP, If using device with adjustable CPAP do not exceed 10 cmH20 PEEP.
7. Check for air leaks
8. Monitor and document the patient's respiratory response to treatment
9. Monitor vital signs at least every 5 minutes. CPAP can cause BP to drop.
10. Monitor LOC closely. Worsening LOC indicates impending respiratory arrest. Be prepared to discontinue CPAP and assist ventilations.
11. Monitor and document the patient's respiratory response to treatment
12. Continue to coach patient to keep mask in place and readjust as needed
13. If respiratory status deteriorates, remove device and assist ventilations as needed.

(Continued next page)

Guideline Number - 4100.00 rev. 10/17/08

CONTINUOUS POSITIVE AIRWAY PRESSURE (CPAP)

(Continued)

REMOVAL PROCEDURE:

1. CPAP therapy needs to be continuous and should not be removed unless the patient can not tolerate the mask or experiences continued or worsening respiratory failure.
2. Consider assisting ventilations manually if the patient is removed from CPAP therapy.
3. CPAP may be discontinued if patient improves dramatically but be prepared to reinstitute CPAP is needed.

PEDIATRIC CONSIDERATIONS:

- CPAP should not be used in children under 12 years of age

SPECIAL NOTES:

- Bronchodilator nebulization may be placed in-line with CPAP circuit.
- Do not remove CPAP until hospital therapy is ready to be placed on patient.
- Most patients will improve in 5-10 minutes. If no improvement within this time, consider assisting ventilations manually.
- Watch patient for gastric distention. Be prepared for vomiting.
- CPAP does not violate DNR Order.
- Request ALS intercept if patient condition does not improve.

Guideline Number – 4140.00 rev. 10/17/08

Glucometer

Blood sugar reading may be taken with a glucometer for patients who are reported diabetic, or suspected to be diabetic, and who have altered mental status. The EMT will use safety finger sticks to avoid accidental blood-borne pathogen exposure.

All EMTs will verify proficiency with the use of the glucometer on an annual basis.

Guideline Number – 4150.00 rev. 10/17/08

Intravenous Access

Guideline Number - 4160.00 rev. 10/17/08

EZ-IO Adult and Pediatric

(OPTIONAL) Requires MD approval see Minnesota Statutes 144E.101 Subd. 6(d)

INDICATIONS:

1. Unresponsive
2. Apparent age > 14 for Adult EZ-IO, < 14 for Pediatric EZ-IO
3. Cardiac Arrest (medical or traumatic)

CONTRAINDICATIONS:

1. Femur or tibia fracture
2. Knee replacement (look for large anterior scar)
3. Severe osteoporosis or tumor of leg
4. Infection at insertion site
5. Inability to locate landmarks or excessive tissue at insertion site

CONSIDERATIONS:

1. Use outside the above indications/contraindications may be authorized by online medical control

EQUIPMENT:

1. EZ-IO driver
2. EZ-IO needle appropriate for age of patient
3. Site prep (Betadine/Alcohol swab)
4. Extension set
5. 10 ml syringe
6. 1000 ml bag of normal saline or lactated ringers
7. Tape/gauze

PROCEDURE:

1. Assemble and prepare all equipment and BSI, including a bag of normal saline with tubing purged.
2. Prep site with betadine or alcohol prep.
3. Locate the patella, tibial tuberosity, and flat surface of the tibia.
4. Verify that target zone is 1 finger width medial to the tibial tuberosity.
5. Open the EZ-IO cartridge and attach the needle set to the driver (there should be a snap).

(Continued next page)

Guideline Number - 4160.00 rev. 10/17/08

EZ-IO Adult and Pediatric
(Continued)

PROCEDURE (continued):

6. Remove the cap from the needle by rotating clockwise until loose and pulling it free.
7. Stabilizing the leg with one hand, position the driver over the site at a 90 degree angle to the bone surface and power the needle through the skin ***only to the bone surface.***
8. Ensure the 5 mm mark (closest to the flange) on the catheter is visible. If the mark is not visible, do not proceed as the needle set is not long enough to penetrate the IO space.
9. Applying firm, steady pressure, power the needle set into the bone until the flange touches the skin ***or*** a sudden lack of resistance is felt.
10. While supporting the needle set with one hand, pull straight back on the driver to detach it from the needle set.
11. Grasping the hub firmly with one hand, rotate the stylet counter clockwise until loose, pull it from the hub, place it in the stylet cartridge, and place in a biohazard container.
12. Confirm placement by; visible blood at the tip of the stylet, aspiration of marrow, free flow of IV fluid without evidence of leakage or extravasations.
14. Rapidly infuse a 10 cc flush of N.S.
15. Secure catheter and IV tubing with tape.
16. Watch for soft tissue swelling.

SPECIAL NOTES

1. If drip rate is slow, flush with 10 cc normal saline. If slow drip continues, consider inflating BP cuff on bag to 300 mm/Hg.
2. The device can be removed by grasping the catheter hub and rotating while pulling gently. A syringe can be attached if a larger handle is desired (rotate clockwise)

Guideline Number – 4170.00 rev. 10/17/08

Peripheral Intravenous Access

(OPTIONAL) Requires MD approval see Minnesota Statutes 144E.101 Subd. 6(d)

Assess indications and explain procedure to patient/family.

Indications:

IV cannulation should be considered for patients who will require fluid volume replacement. Signs and symptoms may include, but are not limited to, patients suffering: 1. Decompensated shock; 2. Hypovolemic shock; 3. Signs and symptoms of dehydration; 4. Chest pain; 5. Glasgow coma scale 8 or below.

Contraindications:

1. Thrombosis (blood clot in extremity to be accessed)
2. Phlebitis (vein infection) or skin infection in extremity
3. Arm on side of mastectomy, dialysis shunt or distal to area of trauma

Equipment needed:

1. Alcohol swab
2. Tourniquet
3. Appropriate size catheter
4. Tape or occlusive dressing
5. IV fluids and IV tubing or saline lock

Procedure:

If IV access cannot be established rapidly at the scene (two attempts maximum) in non-traumatic patients, begin transport to the hospital. Further IV attempts can be made during transport provided all other necessary treatment is already being done. There should be no delay at the scene for IV attempts on trauma patients or patients in shock; these IVs should be attempted during transport.

If transport time is less than five minutes IV should be delayed until arrival at the receiving facility.

For most patients, the EMT has the option of either running fluids through the IV or capping the catheter with a saline lock. However, IV fluids should be hung in the following situations: 1. Whenever it is likely the patient will require fluid volume replacement; or 2. When the administration of multiple IV medications is anticipated.

Guideline Number – 4170.00 rev. 10/17/08
Peripheral Intravenous Access (Continued)

Steps:

1. **Site selection** will depend on many factors including: Patient comfort, accessibility, urgency of IV access, intended use and patient age. In general, more distal sites should be selected first. This allows use of a more proximal site if initial attempt is unsuccessful. Acceptable sites include: dorsal hand, forearm, antecubital (higher likelihood of position-related flow obstruction), foot, lower leg and scalp in children.
2. **Apply** a tourniquet proximal under tension.
3. **Consider** venous dilation; active or passive pumping of an extremity, or gravity.
4. **Clean** skin with alcohol swab.
5. **Stabilize** skin by taught traction distally with the non-dominant hand.
6. **Puncture** skin at a 30º angle, bevel up, just over or parallel to the vein. Once blood is seen in the flash chamber, the catheter is advanced over the needle.
7. **Remove** needle, dispose of in sharps container.
8. **Connect** IV tubing or saline lock.
9. **Open** IV flow to ensure that IV is patent and that no infiltration has occurred.
10. **Adjust** flow rate as appropriate.
11. **Apply** tape or dressing. Additional dressing or tape may be used to prevent accidental removal.

(Continued next page)

Guideline Number – 4170.00 rev. 10/17/08
Peripheral Intravenous Access (Continued)

Complications: Prevention and Management:

Complication:	Prevention:	Management:
Bruising or hematoma:	Appropriate technique.	Apply direct pressure.
Infection:	Aseptic technique.	(No acute)
Fluid extravasation:	Assure appropriate catheter function with saline prior to administering medications.	Removal of catheter.
Thrombosis:	Adequate fluid admin.	Remove catheter.
Obstructed IV lines:	Adequate fluid administration	Aspirate blood if possible, discard, and flush with saline. If unable to aspirate remove catheter.
Embolism:	Prevent air mixture with fluids; do not allow IV bags to run dry.	Disconnect catheter and allow fluid to fill tubing or aspirate air from a port

Guideline Number – 4175.00 rev. 10/17/08

Non Visualized Airways

Guideline Number – 4185.00 rev. 10/17/08
(Non Visualized Airway)
Combitube

Indications:

- Patient is pulseless and breathless, unable to protect own airway; no gag reflex.

Contraindications:

- Patient less than five feet in height for standard Combitube, less than 4 feet for Combitube SA (small adult)
- Patient less than twelve years of age
- Responsive patients with an intact gag reflex.
- Patients with known esophageal disease.
- Patients who have ingested caustic substances.
- Known or suspected foreign body obstruction of the larynx or trachea.
- Presence of tracheostomy

Procedure:

- The first priority is to defibrillate the patient in cases of ventricular fibrillation. The AED should be applied first, using conventional airway management, following the AED protocol.
- The Combitube should be placed during the two minutes of CPR between AED analysis. (Do not allow Combitube placement to delay CPR or AED analysis).
- Ventilate the patient prior to Combitube insertion for 10-15 seconds using a BVM with supplemental oxygen.
- Insertion -- done quickly between ventilation (30 seconds)
- Position the patient's head in a neutral position and grasp the tongue and lower jaw between the index finger and thumb and lift upward (jaw-thrust maneuver).
- Insert the Combitube gently but firmly, following the same direction as the natural curvature of the oropharynx, until the black rings on the tube are positioned slightly beyond the patient's teeth.
- DO NOT USE FORCE! If the tube does not insert easily, withdraw it and repeat procedure.
- In cases of suspected cervical spine injury, c-spine precautions will be taken at all times.

(Continued on next page)

Guideline Number –4185.00 rev. 10/17/08

(Non Visualized Airway)
Combitube
(Continued)

Caution: When facial trauma has resulted in sharp, broken teeth or loose dentures, remove them or loose teeth, and exercise extreme caution when passing the Combitube into the mouth to prevent the cuff from tearing.

With the other hand, hold the Combitube with the curve in the same directions as the curve of the pharynx. Insert the tip into the mouth and advance carefully until the printed ring is aligned with the teeth. **Caution: DO NOT FORCE THE COMBITUBE. If the tube does not advance easily, redirect it or withdraw and reinsert. Have suction available and ready whenever withdrawing tube.**

NOTE:

If the Combitube is not successfully placed within 30 seconds, remove the device and ventilate the patient for 30 seconds using basic methods, as described in C above, before re-attempting insertion.

Inflation of Combitube

- Inflate line 1, blue pilot balloon leading the pharyngeal cuff, with 100 ml (cc) of air using the 100 ml (cc) syringe. (This may cause the Combitube to move slightly from the patient's mouth).
- Inflate line 2, white pilot balloon leading the distal cuff, with approximately 20 ml (cc) of air using the 20 ml (cc) syringe.

NOTE: Keep syringes with the pt in case adjustments need to be made.

Ventilation

- Begin ventilation through the longer blue (distal) tube. Watch for chest rise. If auscultation of breath sounds is positive and auscultation of gastric air sounds is negative, continue ventilation.
- If no chest rise, negative lung sounds, and/or positive gastric air sounds with ventilation through the distal tube, begin ventilation through the shorter clear (proximal) tube. Confirm ventilation with chest rise, presence of auscultated lung sounds, and absence of gastric air sounds.

(Continued next page)

Guideline Number –4185.00 rev. 10/17/08

(Non Visualized Airway)
Combitube (Continued)

- If there is no chest rise or positive lung sounds through either tube, remove the device, hyperventilate the patient 20-30 seconds as described in C above, and repeat the insertion/inflation/ventilation procedures.
- Correct Combitube placement should be verified with two separate methods, which may include, but are not limited to, auscultating breath sounds during ventilation, verifying equal and bilateral chest rise and fall, end-tidal/CO2 monitor, suction syringe technique.
- Continue to ventilate the patient through the tube which resulted in lung sounds using a BVM or a manually triggered oxygen delivery value.

REASSESS TUBE PLACEMENT FOLLOWING EVERY PATIENT MOVEMENT.

- If two consecutive attempts at non visualized airway placement fail to result in a proper placement and ventilation, do not attempt placement again. Ventilate the patient using basic methods and equipment.

Removal of Combitube:

In general it is not appropriate to remove a properly placed Combitube. It may be more appropriate to calm the patient and assist their ventilations. Premature removal of the Combitube may leave the patient with an unprotected airway in the event that their level of consciousness decreases. The return of the patient's gag is not sufficient reason to remove the Combitube. The patient's level of consciousness must be sufficient to spontaneously protect their airway.

Indications:

- The patient regains consciousness AND their protective gag reflex returns

OR

- Spontaneous ventilation is inadequate with the Combitube in place.

Procedure:

- Position patient on side, using spinal injury precautions when indicated.
- Have suction equipment readily available.
- Deflate cuffs (blue, then white) and withdraw device in steady motion.
- Suction as needed, monitoring airway and respirations closely.
- Be prepared for vomiting

Guideline Number – 4200.00 rev. 10/17/08
(Non visualized airway)
KING LT-D or LTS-D AIRWAY

Indications:

- Patient is unconscious and unable to protect own airway; no apparent gag reflex.
- GCS 8 or below.

Contraindications:

- Patient with an intact gag reflex
- Ingestion of a caustic substance
- Patient less than that approved for King LT-D size being used.

Procedure:

- Don protective eyewear, mask, and gloves
- Ventilate patient with oral/nasal airways and BVM with 100% supplemental oxygen during preparation of King LT-D
- Select appropriate size
  - #3 – for patients 4ft – 5ft
  - #4 – for patients 5ft – 6ft
  - #5 – for patients 6ft and over
- Test Cuffs , remove all air from cuffs
- Apply a water based lubricant to the beveled distal tip and posterior aspect of the tube, taking care to avoid introduction of lubricant in or near the ventilator openings.
- Place patient's head in a neutral position. If trauma is suspected provide manual cervical spine motion restriction
- Hold the King LT-D at the connector with the dominant hand.
- With the non-dominant hand, hold the mouth open and apply a chin lift.
- Rotate the airway laterally 45-90 degrees such that the blue orientation line is touching the corner of the mouth, introduce the tip into the mouth and advance behind the base of the tongue.
- As the tube tip passes over the tongue, rotate the tube back to the midline so that the blue orientation line faces the patient’s chin.
- Without exerting excessive force, advance the tube until base of the connector is aligned with teeth or gums.
- Inflate the King LT-D with the appropriate sized volume of air.
  - #5 LT-D 70-90 ml, LTS-D 60-80 ml
  - #4 LT-D 60-80 ml, LTS-D 50-70 ml
  - #3 LT-D 45-60 ml, LTS-D 40-55 ml

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Guideline Number – 4200.00 rev. 10/17/08
(Non visualized airway)
KING LT-D or LTS-D AIRWAY
(Continued)

Procedure (continued):

- Attach the manual resuscitator bag to the King LT-D.
- While bagging the patient, gently withdraw the tube until ventilation becomes easy and free flowing.
- Adjust cuff inflation if necessary to maintain a seal of the airway at the peak ventilatory pressure employed
- Confirm correct placement by listening for breath sounds, observing the chest rise and fall.
- Secure the King LT-D. The tube can be secured with a King Flex Blue bite block, with generic bite block, or if no other means are available, with tape. Consider use of C-collar to restrict head movement
- If using King LTS-D, decompress the stomach by inserting a nasogastric tube though the gastric outlet on the airway.

KING LT-D and KING LTS-D REMOVAL

- Removal of the airway is indicated IF the patient has a return of gag reflex AND ability to protect own airway OR if ventilation is inadequate.
- Don protective eyewear, mask, and gloves
- Vomiting is likely, have suction ready with yankauer tip.
- If not contraindicated by suspected spinal injury, turn the patient to the side.
- Insert the syringe into the pilot bulb and withdraw all air from the cuff.
- Carefully remove the tube staying alert for vomiting.
- Oxygenate and ventilate as needed.

Guideline Number – 4250.00 rev. 10/17/08

PNEUMATIC ANTI-SHOCK GARMENT (PASG)

(OPTIONAL) Requires MD approval see Minnesota Statutes 144E.101 Subd. 6(d)

INDICATIONS:

1. Stabilization of pelvic injury
2. Compression of external bleeding
3. Intra-abdominal bleeding, suspected ruptured aortic abdominal aneurysm
4. Other causes of shock for which MAST may be helpful:
    a. spinal shock
    b. overdose
    c. septic shock
    d. anaphylaxis

CONTRAINDICTIONS:

1. Hypotension associated with heart attack (cardiogenic shock)
2. Pulmonary edema
3. Penetrating trauma anywhere on the body, regardless of other injuries
4. Inflation of the abdominal compartment in pregnancy is a relative contraindication.

PRECAUTIONS:

1. Do not deflate PASG without physician order.
2. Physicians or ALS may choose not to use PASG, as it is controversial in its effectiveness.
3. Respirations may need to be assisted after inflation of abdominal section.

INFLATION PROCEDURE:

1. Check vital signs and lung sounds. Expose and perform exam of areas that will be covered by PASG
2. Remove articles such as belts with large buckles, keys, etc. from pockets
3. Position patient on the PASG. The top of the garment should be placed just below the lowest rib
4. Wrap garment snugly and secure Velcro. Avoid wrinkles in garment to ensure proper inflation
5. Attach air tubing. Open valves to legs and close valve to abdominal section
6. Inflate both legs until Velcro crackles. Close leg valves
7. Recheck vital signs and lung sounds. If systolic pressure remains low, the physician may order inflation of the abdominal section
8. Inflate abdominal section by opening valve to the abdominal section while leg valves remain closed. Inflate abdominal section until Velcro crackles. Close valve
9. Recheck vital signs and lung sounds after application.
10. Continue to monitor vital signs every 3 to 5 minutes after placement.

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Guideline Number – 4250.00 **rev.** 10/17/08

PNEUMATIC ANTI-SHOCK GARMENT (PASG)

REMOVAL PROCEDURE:

1. Deflate only under controlled circumstances at the direction of the physician.
2. Never deflate entire PASG at once. Deflate abdominal section first, then each leg separately
3. Deflate slowly – 15 to 30 minutes for each section. Detach tubing at abdominal valve, place thumb over connector and open valve. Release air slowly by thumb control.
4. Continue to monitor BP every 2 – 3 minutes throughout deflation procedure.
5. If BP drops by 5 mmHg, stop deflation until BP is stabilized by further volume replacement.

PEDIATRIC CONSIDERATIONS:

1. Inflation in pediatric patients is per physician order only

SPECIAL NOTES:

1. Head injury is not a contraindication
2. The PASG should not be used for lower extremity long bone splinting. These injuries should be splinted using standard splinting devices or traction splints, when appropriate

Guideline Number – 4275.00 rev. 10/17/08
PULSE OXIMETRY

Pulse Oximetry Readings

>=92% **Normal**
90-92% **Evaluate Patient: Begin Oxygen**
85-90% **Evaluate Patient: Begin 100% Oxygen & treat appropriately**
<85% **Major: Evaluate, Begin 100% Oxygen & treat aggressively**

INDICATIONS:

1. Respiratory distress/complaints
2. Cardiac problems
3. Multiple system trauma
4. Poor color
5. Patients requiring use of airway adjuncts and/or assisted ventilation's
6. Suspected shock
7. Altered level of consciousness

NOTE: Never withhold Oxygen from a symptomatic patient regardless of the pulse Oximetry reading.

PRECAUTIONS:

1. Patients with hemoglobin disorders such as CO poisoning, anemia, and methemoglobinemia may give artificially high saO2 readings. Readings in such patients should be interpreted with extreme caution
2. Pulse Oximetry readings may be difficult to obtain in states of low perfusion

PROCEDURE FOR PATIENTS WITH SaO2 <90% OR FALLING SaO2:

1. Check airway and manage as indicated
2. Increase oxygen delivery (increase liter flow) and/or assist ventilation
3. Check pulse Oximetry device placement. Possible causes of inaccurate readings include:
   - Excessive movement, ambient light or temperature
   - Moisture in the sensor or sensor not at heart level.
   - Cold, blue fingertips (do NOT use thumbs)
   - Sensor placed on same arm blood pressure is being obtained on
   - Improperly attached sensor (look for consistent flashing green light)
   - Incorrect sensor for patient (do NOT use on neonates or infants)
   - Poor patient perfusion (light should blink green and heart rate digital reading should be the same as the patients radial pulse when taken)
   - Anemia, low or misleading hemoglobin concentrations (CO poisoning, ingested fingernail polish)

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Guideline Number - 4275.00 rev. 10/17/08

PULSE OXIMETRY

(Continued)

PEDIATRIC CONSIDERATIONS:

1. Special probes may be required to obtain readings in pediatric patients

SPECIAL NOTES:

1. Best probe site in adults is usually the middle fingertip with nail polish removed
2. Attempt to obtain and document pulse Oximetry readings before and during oxygen therapy
3. The use of pulse Oximetry as a vital sign is encouraged, as the oximeter may be helpful in detecting hypoxia not evidenced by signs or symptoms
4. Sensor sites (fingertips) must be checked periodically to determine sensor positioning, skin sensitivity and circulation (pink, warm, warm, capillary refill less than 2 seconds).
5. Clean Oximeter with Disinfectant

Guideline Number- 4300.00 rev. 10/17/08

ResQPOD

The ResQPOD Circulatory Enhancer provides a small but important amount of resistance when the patient inhales through the device. This resistance increases blood flow back to the heart which increases the preload of the heart.

INDICATIONS:

Cardiac arrest (ResQPOD)

CONTRAINDICATIONS:

Do not use in patient < 12 y/o or under 100 lbs.

PROCEDURE:

A. Select airway adjunct (mask, Combitube, or King Airway).

B. Turn timing lights on with an advanced airway (Combitube or King Airway). The timing lights indicate when a ventilation should be administered.

C. Continue CPR allowing complete chest re-coil after each compression.

D. Assure proper ventilation rates.

1) 30:2 mask Rate
2) 8-10/min– advanced airway rate.

E. Place ResQPOD between adjunct and bag-valve mask with supplemental Oxygen and ensure the mask has a continuous tight seal.

F. Ensure Combitube or King Airway is properly placed and secured with a mechanical tube holder.

Use caution so additional weight of ResQPOD does not move the Combitube or King Airway.

G. Document time ResQPOD is placed in circuit and any changes in skin color.

H. If ResQPOD fills with blood/emesis/fluid, remove and shake the fluid out. Re-apply and continue ventilations.

If EMS providers or hospital staffs have not been trained in the ResQPOD, discontinue use. Only healthcare providers who are trained in the use of the ResQPOD should use the device.

Guideline Number – 5000.00

APPENDIX

Guideline Number – 5050.00 rev. 10/17/08

ACCEPTED ABBREVIATIONS

↑	increase(d)
Ø	None
↓	decrease(d)
≈	approximately
#	pound
Δ	Change
♂	Male
♀	Female
(L)	Left
@	At
(R)	Right
a	Before
1°, 2°, 3°	first degree, second degree, third degree
2x, 3x	2 times, 3 times, etc.
AAA	abdominal aortic aneurysm
A & O x 3	alert and oriented to person, place, time
A-fib	atrial fibrillation
A-flut	atrial flutter
A-tach	atrial tachycardia
AB	abortion, miscarriage
ABCs	airway, breathing, and circulation
ABD	Abdomen
AED	automatic external defibrillator
AMA	against medical advice
AMI	acute myocardial infarction
Amb	ambulance
amt.	Amount
ant.	Anterior
approx.	approximately
ASA	acetylsalicylic acid (aspirin)
ASAP	as soon as possible
ASHD	arteriosclerotic heart disease
ATV	automatic transport ventilator
AV	atrioventricular
BBB	bundle branch block
Bicarb	Bicarbonate
bilat.	Bilateral
BM	bowel movement
BP	blood pressure
brady	bradycardia
BS	blood sugar, breath sounds

(Continued next page)

Guideline Number – 5050.00 rev. 10/17/08

Accepted Abbreviations (Continued)

BSA	body surface area
BSI	body substance isolation
BVM	bag-valve mask
c	With
C-1, etc.	first cervical vertebrae
C/O	complaining of
Ca	Cancer
CC	chief complaint
cc	cubic centimeter
CHF	congestive heart failure
CHI	closed head injury
CMS	Circulation, movement, sensation
CNS	central nervous system
CO	carbon monoxide
c/o	complains of
CO2	carbon dioxide
COPD	chronic obstructive pulmonary disease
CPAP	Continuous positive airway pressure
CPR	cardiopulmonary resuscitation
CSF	cerebrospinal fluid
CVA	cerebrovascular accident (stroke)
D50W	50% dextrose in water
D5W	5% dextrose in water
DC	Discontinue
DNR	do not resuscitate
DOA	dead on arrival
DOB	date of birth
DTs	delirium tremens
Dx	Diagnosis
ECG	electrocardiogram
ED	emergency department
eg	for example
ENT	ear, nose and throat
ETT	endotracheal tube
ETOH	ethyl alcohol
exp.	Expiratory
extr.	Extremities
FBAO	foreign body airway obstruction
Fx	Fracture
G	gravida
GCS	Glasgow coma scale

(Continued next page)

Guideline Number – 5050.00 rev. 10/17/08

Accepted Abbreviations (Continued)

GI	gastrointestinal
GSW	gunshot wound
gtt	drops
Gyn	Gynecology
h/o	history of
H&P	history physical
HA	headache
HEENT	head, eyes, ears, nose and throat
Hep A	hepatitis A
Hep B	hepatitis B
Hep C	hepatitis C
HIV	human immunodeficiency virus
HPI	history of present illness/injury
HR	heart rate
HTN	Hypertension
Hx	History
IM	Intramuscular
ICD	intracardiac defibrillator
IM	intramuscular
IO	Intraosseous
IV	Intravenous
JVD	jugular vein distention
L-1, etc.	first lumbar vertebrae
Lac	Laceration
LLQ	left lower quadrant
LMP	last menstrual period
LOC	loss/level of consciousness
LS	lung sounds
LUQ	left upper quadrant
MAE	moves all extremities
MCA	motorcycle accident
Mcg	Microgram
MDI	metered dose inhaler
Meq	Milliequivalent
Mg	Milligram
MI	myocardial infarction
Mid	Middle
mg	1 mg (no trailing 0) 0.1 mg
ml	Milliliter
mm	Millimeter
mod	Moderate

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Guideline Number – 5050.00 rev. 10/17/08

Accepted Abbreviations (Continued)

MgSO4	Do not use – write Magnesium Sulfate
MS/MSO4	Do not use- write morphine sulfate
MVC	motor vehicle crash
N & V	nausea and vomiting
NAD	no acute distress
NaHCO3	sodium bicarbonate
neg./-	Negative
NGT	Nasogastric tube
NKA	no known allergies
NRB	non-rebreather mask
NS	normal saline
NSR	normal sinus rhythm
Ntg	Nitroglycerin
O2	Oxygen
O2 sat	oxygen saturation
OB	obstetrical
occ.	occasional
OD	overdose
p	after
P	pulse
p.o.	by mouth, orally
p.r.n.	as needed
PAC	premature atrial contraction
palp.	palpated, palpation
PCT	pneumatic compression trousers
PAT	paroxysmal atrial tachycardia
PE	physical exam, pulmonary embolism
ped.	pediatric
PEEP	positive end expiratory pressure
PERRL	pupils equal, round, react to light
PG	pregnant, pregnancy
PID	pelvic inflammatory disease
PMH	past medical history
PNB	pulseless, not breathing
pos./+	Positive
post.	Posterior
PSVT	paroxysmal supraventricular tachycardia
Pt.	Patient
PTCA	percutaneous transvenous coronary angioplasty
PVC	premature ventricular contraction
q.	Every

(Continued next page)

Guideline Number – 5050.00 rev. 10/17/08

Accepted Abbreviations (Continued)

R	Respirations
R/O	rule out
RLQ	right lower quadrant
RLS	red lights and siren
ROM	range of motion
RR	respiratory rate
RSI	rapid sequence induction
RUQ	right upper quadrant
Rx	Treatment
$\overline{s}$	Without
SBP	systolic blood pressure
SC	subcutaneous
S-brady	sinus bradycardia
S-tach	sinus tachycardia
SIDS	sudden infant death syndrome
SL	Sublingual
SO	standing order
SOB	shortness of breath
SPO2	oxygen saturation via pulse oximeter
SVT	supraventricular tachycardia
Sx	Symptoms
T	temperature
tach.	Tachycardia
TB	Tuberculosis
TBSA	total body surface area
TIA	transient ischemic attack
TKO	to keep open
TTA	trauma team activation
Tx	treatment
URI	upper respiratory infection
UTI	urinary tract infection
V-fib	ventricular fibrillation
V-tach	ventricular tachycardia
VO	verbal order
VS	vital signs
w/c	wheelchair
WNL	within normal limits
Y/O	year old

Guideline Number – 5100.00

REFERENCE CHARTS

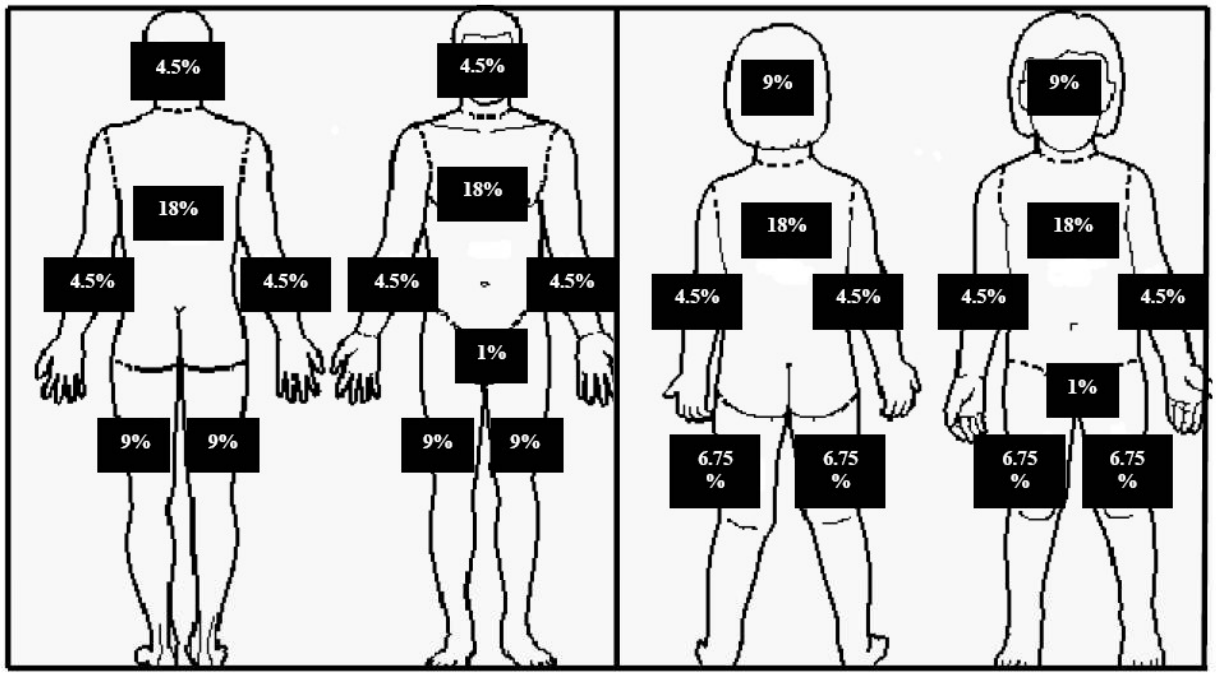
Guideline Number – 5150.00 rev. 10/17/08

Burn Charts

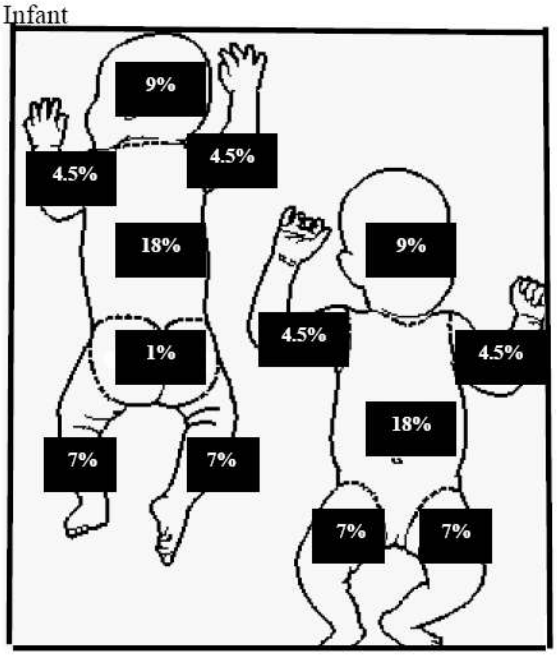
BURN CHART

(Note: only 2° & 3° burns are counted)

Adult **Child**



Infant



PARKLAND FORMULA*
(IV fluids for first 8 hours)

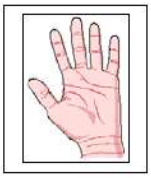
$$\frac{\text{\% Burn Area x Pt Wt. in Kg}}{4} = \text{cc/hr}$$

Example: 20% TBSA; patient weight - 70 kg:

$$\frac{20 \times 70}{4} = \frac{1400}{4} = 350 \text{ cc/hr NS}$$

This formula does not apply to patients in shock. The patient in shock needs more aggressive IV fluid replacement.

THE PATIENT'S PALM EQUALS APPROXIMATELY 1% OF THEIR TOTAL BODY SURFACE AREA.



Guideline Number – 5200.00 rev. 10/17/08

GLASGOW COMA SCALE

GLASGOW COMA SCALE	
Eye Opening Response	**Score**
Spontaneous - Already open with blinking	4
To Speech - Not necessary to request eye opening	3
To Pain - Stimulus should not be to the face	2
None - Make note if eyes are swollen shut	1
Verbal Response	
Oriented - Knows name, age, etc.	5
Confused conversation - Still answers all questions	4
Inappropriate Words - Speech is either exclamatory or at random	3
Incomprehensible sounds - Do not confuse with partial respiratory obstruction	2
None - Make note if patient is intubated	1
Best Upper Limb Motor Response (Pain applied to nailbed)	
Obeys - Moves limb to command; Pain is not required	6
Localizes - Changing the location of the painful stimulus causes the limb to follow	5
Withdraws - Pulls away from painful stimulus	4
Abnormal flexion - Decorticate posturing	3
Extensor response - Decerebrate posturing	2
No response	1

Guideline Number – 5300.00 rev. 10/17/08

Do Not Resuscitate

Guideline number – 5325.00 rev. 10/17/08

No Cardiopulmonary Resuscitation (CPR)

It is my/our wish that no Cardiopulmonary Resuscitation (CPR) be performed on:

_____
Print Name of Patient

_____ _____
Signature of Patient or Responsible Party Relationship

_____ _____
Address of Patient or Responsible Party Telephone Number

_____
Date

Do not perform CPR on the above-named patient/resident at the request of the family or other responsible party.

_____ _____
Print Name of Attending Physician Date

_____
Signature of Attending Physician

Guideline Number- 5350.00 rev. 10/17/08

DNR FORM

EMERGENCY RESUSCITATION GUIDELINES

CHECK ONE BOX RECOMMENDED MEDICAL RESPONSE MEDICAL RESPONSE

CATEGORY	ACTION	WILL PROVIDE	NOT PROVIDED
□ CPR*	Call 911	Full Treatment	As Appropriate
□ DNR	No 911 for Cardio-Pulmonary Arrest May Call 911 for Urgent Needs May Call Ambulance For Routine Transport Call M.D.	Active Treatment up to the Point of Cardiopulmonary Arrest (NO CPR)	**If Cardiopulmonary Arrest**: (No CPR*) No Advanced Airway No Ventilatory Assistance No Chest Compression No Defibrillation
□ Hospice or Comfort Care	No 911 for Cardio-pulmonary Arrest Including DNR*	Comfort Care and Hygiene Care Call M.D. or R.N. May Call Ambulance For Routine Transport May call 911 for Urgent Needs	**If in Cardiopulmonary Arrest**: No Advanced Airway No Ventilatory Assistance No Chest Compression No Defibrillation

Minnesota Medical Association (MMA) DNR Form:

This form MUST accompany all home DNR patients and signed by patient or their guardian, a witness and the patient's physician to be considered valid.

Patient/Client Name (Please Print)
Optional Identifying Information: DOB Sex Race Eye Color Hair Color Height Weight

I understand this document identifies the level of care to be rendered in situations where death may be imminent. I make this request knowingly and I am aware of the alternatives. I expressly release, on behalf of myself and my family, all persons who shall in the future attend to my medical care of any and all liability whatsoever for acting in accordance with this request of mine. Furthermore, I direct these guidelines be enforced even though I may develop a diminished mental capacity at some future time. I am aware that I can revoke these guidelines at any time by simply expressing my request verbally or in writing to my caretaking family, physician, or designated health care provider, or by destroying this form with the intent to revoke it.

Patient/Client/Proxy/Agent or Other Authorized Signature Printed Name "Relationship" Date

I have witnessed the above signature:

Witness Signature Printed Name Address Phone Number Date

Physician's Signature Printed Name Address Phone Number Date

THE ABOVE 3 SIGNATURES AND 3 DATES ARE REQUIRED FOR THIS FORM TO BE VALID AND IT INTENT CARRIED OUT.

Guideline Number – 5500.00 rev. 10/17/08

Medical Director Skill Assessment Verification

Minnesota Statutes, section 144E.265, subpart 3: Annually, the medical director or the medical director's designee shall assess the practical skills of each person on the ambulance service roster and sign a statement verifying the proficiency of each person. The statements shall be maintained in the ambulance service licensee's files.

I, as medical director for Appleton Ambulance Service verify that each of the following ambulance service personnel has been assessed for practical skill proficiency by me or my designee and is approved to provide care in accordance with the protocol/guidelines established for the ambulance service.

Name	Date of Training	Certification Level	Certification MN Certification #	Exp. Date

Medical Director_____MN Physician License #_____
(Print Name)

Signature_____Date_____
(Original Signature)

Guideline Number – 5550.00 rev. 10/17/08

Medical Director Variance Medication Annual Skill Verification

Minnesota Rules, section 4690.8300, subpart 8: In order to maintain a variance granted under subpart 7 (Variance for certain drugs.), the licensee's medical director shall, by the annual anniversary date of the approved variance: a) provide a list of the licensee's attendants; b) certify in writing that each attendant has satisfactorily completed the required training and retained skill proficiency; and c) certify in writing that, prior to allowing an attendant who was hired after the variance was granted to administer a drug specified in subpart 7, the attendant satisfactorily completed the required training. Documentation of items a) through c) shall be retained in the licensee's files.

Variance Medications Granted:

Beta Agonist by Metered Dose Inhalation __X___	Beta Agonist by Nebulization __X__
Premeasured Subcutaneous Epinephrine __X___	Sublingual Nitroglycerine ___X__
Premeasured Intramuscular or Subcutaneous Glucagon __X___	

I, as medical director for Appleton Ambulance Service, verify that each of the following ambulance service personnel has completed continuing education training and showed skill proficiency for the above listed variance medications in accordance with the protocols/ guidelines I have established and approved.

Name L	Name F	Var Trg	Cert Level	EMSRB #	Expires

Medical Director MN Physician License # _____

_____
(Print Name)

Signature _____ Date _____

Guideline Number – 5600.00 rev. 10/17/08

Annual Medical Director Approval of Specific Procedures for Basic Life Support Services

Service Medical Director: Initial each procedure below that has been approved for your ambulance service. This will verify that protocol/guidelines, training, on-going training, and quality assurance plans are in place and currently approved by you in accordance with Minnesota Statutes, section 144E.101, subdivision 6.

Esophageal Tracheal Airway:
Type of airway authorized (**initial those that apply**):
_____ Combi-Tube®; _____ King®

Intravenous Infusion: _____Authorized for EZ-IO®: _____

Medical Anti-shock Trousers: _____

I, as medical director for Appleton Ambulance Service, verify the following ambulance service personnel have completed training and/or ongoing training (continuing education) within the past year, and are authorized by me to use the equipment necessary to provide care in accordance with the protocol/guidelines I have established and approved.

Name L	Name F	Spec Proc	Cert Level	EMSRB #	Expires

Medical Director MN Physician License # _____

_____
(Print Name)

Signature _____ Date _____

Guideline Number – 5650.00 rev. 10/17/08

Medical Director Skill Assessment Verification - Designee

Minnesota Statutes, section 144E.265, subpart 3: Annually, the medical director or the medical director's designee shall assess the practical skills of each person on the ambulance service roster and sign a statement verifying the proficiency of each person. The statements shall be maintained in the ambulance service licensee's files.

I, _____, as medical director for Appleton Ambulance Service authorize the following person(s) to act as my designee(s) for the purpose of annual skill verification. This may include but is not limited to:

_____

_____

_____

_____

Medical Director MN Physician License # _____

_____
(Print Name)

Signature _____ Date _____

Guideline Number – 5700.00 rev. 10/17/08

MEDICAL DIRECTION STATEMENT

I M.D. being a licensed physician in Minnesota, having experience in, and knowledge of, emergency care of acutely ill or traumatized patients, and being familiar with the design and operation of local, regional, and state emergency medical services systems agree to provide medical direction to the Appleton Ambulance Service. This will be in accordance with Minnesota Statutes, sections 144E.001 to 144E.33 and Minnesota Rules, Chapter 4690. I accept responsibility for the following as stated in Minnesota Statutes, section 144.265, Subdivisions 2 & 3.

My responsibilities as medical director shall include, but are not limited to:

1. Approving standards for training and orientation of personnel that impact patient care.

2. Approving standards for purchasing equipment and supplies that impact patient care.

3. Establishing standing orders for pre-hospital care.

4. Approving triage, treatment, and transportation guidelines for adult and pediatric patients.

5. Participating in the development and operation of continuous quality improvement programs, including, but not limited to, case review and resolution of patient complaints.

6. Establishing procedures for the administration of drugs.

7. Maintaining the quality of care according to the above standards and procedures established.

Annually, I or my designee shall assess the practical skills of each person on the ambulance service roster and will sign a statement verifying the proficiency of each person. The statements will be maintained in the ambulance services files.

Medical Director:_____ Date:_____
(Original signature)

License Number:_____