

*Emergency
H/20*

Chapter HSS 110

*Emergency
110.01 & 110.09
eff. 7-1-90***LICENSING OF AMBULANCE SERVICE
PROVIDERS AND AMBULANCE ATTENDANTS**

HSS 110.10 Defibrillation by ambulance attendants

HSS 110.10 Defibrillation by ambulance attendants. (1) **PURPOSE.** This section establishes standards for certification by the department of licensed ambulance attendants to administer defibrillation, under medical control, in a prehospital setting. It also establishes standards for department approval of plans for the delivery of ambulance attendant defibrillation services by licensed ambulance service providers and establishes requirements to assure standardization and quality assurance in training and use of ambulance attendant defibrillation personnel statewide.

(2) **APPLICABILITY.** This section applies to any person involved in emergency medical services supervision, training or provision who seeks to provide training for, provide medical control for, be trained in, or engage in defibrillation by ambulance attendants.

(3) **AUTHORITY.** This section is promulgated under the authority of s. 146.50 (3), Stats.

(4) **DEFINITIONS.** In this section:

(a) "Ambulance attendant" means a person licensed as an ambulance attendant under s. 146.50, Stats., and ch. H 20 [HSS 110], who is responsible for the administration of emergency care procedures and proper handling and transporting of sick, disabled or injured persons.

(b) "Advanced life support" or "ALS" means use, by appropriately trained and licensed personnel, in prehospital and interhospital emergency care and transportation of patients, of the medical knowledge, skills and techniques included in the department-approved training required for licensure or certification of emergency medical technicians-intermediate or emergency medical technicians-advanced (paramedic) and which are not included in basic life support.

(c) "Ambulance attendant-defibrillation, automatic" or "ambulance attendant-DA" means an ambulance attendant who is certified by the department to use an automatic defibrillator to administer defibrillation in a prehospital setting to a person experiencing cardiac arrest due to ventricular fibrillation.

(d) "Ambulance attendant-defibrillation, manual" or "ambulance attendant-DM" means an ambulance attendant who is certified by the department to use a manual defibrillator to administer defibrillation in a prehospital setting to a person experiencing cardiac arrest due to ventricular fibrillation.

(e) "Ambulance attendant defibrillation personnel" means ambulance attendants-DA or ambulance attendants-DM certified under this section.

(f) "Ambulance attendant defibrillation plan" or "plan" means a plan submitted by or for one or more hospitals providing emergency services, one or more licensed physicians and one or more ambulance service providers intending to implement an ambulance attendant defibrillation program and which details the training and utilization of ambulance attendants to administer defibrillation, as well as the quality assurance mechanisms to be used in the program.

(g) "Ambulance attendant defibrillation training course" means a department-approved course of instruction which will qualify a student for examination and certification as an ambulance attendant-DA or ambulance attendant-DM.

(h) "Ambulance service provider" or "provider" means a person who is licensed as an ambulance service provider under s. 146.50, Stats., and ch. H 20 [HSS 110], and who is engaged in the business of transporting sick, disabled or injured persons to or from facilities or institutions providing health services.

(i) "Automatic defibrillator" means a monitor and defibrillator which is capable of recognizing the presence or absence of ventricular fibrillation and determining, without operator intervention, whether defibrillation should be administered. An automatic defibrillator may be referred to as "fully automatic" if, in use, it will charge and deliver an electrical impulse to an individual's heart without operator intervention when ventricular fibrillation is detected or "semiautomatic" if it delivers the electrical impulse only at the command of the operator after ventricular fibrillation is detected.

(j) "Basic life support" or "BLS" means use, in the prehospital and interhospital emergency care and transportation of patients, of the knowledge, skills and techniques included in the department-approved training required for licensure of ambulance attendants.

(k) "Defibrillation" means the administration of an electrical impulse to an individual's heart for the purpose of stopping ventricular fibrillation.

(l) "Department" means the department of health and social services.

(m) "Manual defibrillator" means a monitor and defibrillator which requires the operator to analyze and recognize a cardiac rhythm and will charge and deliver an electrical impulse to an individual's heart only at the command of the operator.

(n) "Medical control" means direction, through oral orders or a protocol, supervision and quality control by the medical director or a physician-designee of the medical director of the activities of an ambulance attendant administering defibrillation in the prehospital emergency care of a patient.

(o) "Medical control hospital" means a hospital providing emergency services which accepts responsibility to serve as a base for the system of communication, medical control and direction for ambulance attendant defibrillation personnel.

(p) "Monitor and defibrillator" means a device which is capable of monitoring the rhythm of an individual's heart, creating a continuous integrated recording of the electrocardiogram and voice communication

occurring simultaneously during operations by ambulance attendant defibrillation personnel, and delivering a regulated electrical impulse to the individual's heart.

(q) "On-line medical control physician" means a physician licensed under ch. 448, Stats., who is designated by the program medical director to provide voice communication of medical direction to ambulance attendant defibrillation personnel and to assume responsibility for the care provided by ambulance attendant defibrillation personnel in response to that direction.

(r) "Prehospital setting" means a location at which emergency medical care is administered to a patient prior to the patient's arrival at a hospital.

(s) "Program coordinator" means the person designated by the program medical director to be responsible for day-to-day operation and recordkeeping for the ambulance attendant defibrillation program described in the plan.

(t) "Program medical director" means the physician licensed under ch. 448, Stats., who is designated in an ambulance attendant defibrillation plan to be responsible for the medical control, direction and supervision of all phases of the ambulance attendant defibrillation program operated under the plan and of ambulance attendants performing defibrillation under the plan, the establishment of standard operating procedures for these personnel, the coordination and supervision of evaluation activities carried out under the plan, and, if they are to be used in implementing the ambulance attendant defibrillation program, the designation of on-line medical control physicians.

(u) "Protocol" means a written statement developed and distributed by the department and signed by the program medical director which lists and describes the steps an ambulance attendant is to follow in assessing and treating a patient suffering cardiac arrest from ventricular fibrillation.

(v) "Quality assurance program" means a department-approved program operating under the direction of a physician licensed under ch. 448, Stats., on a regional or statewide basis, which collects and analyzes case records submitted by 2 or more ambulance service providers using ambulance attendant defibrillation personnel and provides data summaries of ambulance attendant defibrillation activity and performance improvement recommendations to those service providers and personnel.

(w) "Service medical director" means a physician licensed under ch. 448, Stats., who accepts responsibility for the medical aspects of the operation and for medical supervision of ambulance attendant defibrillation services for a specific ambulance service provider.

(x) "Training center" means a medical or educational institution which sponsors a department-approved ambulance attendant defibrillation training course.

(y) "Training course instructor-coordinator" means a physician licensed under ch. 448, Stats., a physician's assistant certified under ch. 448, Stats., a registered nurse registered under ch. 441, Stats., or an emergency medical technician - advanced (paramedic) licensed under s. 146.35, Stats., designated by the training course medical director and

training center to coordinate and administer an ambulance attendant defibrillation training course.

(z) "Training course medical director" means a physician licensed under ch. 448, Stats., who accepts responsibility for the medical aspects of the ambulance attendant defibrillation training course offered by a training center.

(za) "Ventricular fibrillation" means a disturbance in the normal rhythm of the heart which is characterized by rapid, irregular and ineffective twitching of the lower chambers, or ventricles, of the heart.

(5) GENERAL PROVISIONS. (a) No ambulance service provider may permit an ambulance attendant to perform defibrillation on any individual without the prior approval of the department.

(b) No person licensed only as an ambulance attendant may perform defibrillation unless the person is certified by the department as an ambulance attendant-DA or ambulance attendant-DM and is a participant in a department-approved ambulance attendant defibrillation program.

(c) No ambulance attendant-DA or ambulance attendant-DM may administer drugs or other advanced life support procedures except defibrillation under an ambulance attendant defibrillation plan.

(d) No person may function as an ambulance attendant-DA or ambulance attendant-DM unless certified by the department.

(e) No ambulance attendant-DA or ambulance attendant-DM may function as an emergency medical technician — advanced (paramedic) as defined in s. 146.35 (1), Stats., in the provision of ambulance service nor may any ambulance service provider operating under an emergency medical technician — advanced (paramedic) plan approved by the department under s. 146.35 (3), Stats., substitute an ambulance attendant trained in administering defibrillation for an emergency medical technician — advanced (paramedic) required by the emergency medical technician-advanced (paramedic) plan.

(6) PLAN FOR DEFIBRILLATION BY AMBULANCE ATTENDANTS. (a) *Plan submission.* One or more hospitals providing emergency services, one or more licensed physicians and one or more ambulance service providers may submit an ambulance attendant defibrillation plan to the department. The plan shall contain all the information required under par. (b).

(b) *Required elements.* No person may begin training or use of ambulance attendants to provide prehospital defibrillation services until an ambulance attendant defibrillation plan has been submitted to and approved by the department. At a minimum, the plan shall:

1. Identify the hospital or hospitals providing emergency services, licensed physician or physicians, and licensed ambulance service provider or providers by or for whom the plan is being submitted;

2. Identify and describe the roles, responsibilities and qualifications of the program medical director, medical control hospital or hospitals, on-line medical control physicians, if they are to be used, program coordinator, training course medical director, training course instructor-coordinator and service medical director or directors in the proposed program;

3. Identify and describe the roles, responsibilities and qualifications of the training center to be used and its relationship to the medical control hospital or hospitals;
4. Describe the licensed ambulance service provider or providers planning to use ambulance attendant defibrillation personnel under the plan;
5. Include statistical information which identifies the number of pulseless, non-breathing patients encountered in the year previous to plan submission by each ambulance service provider included in the plan, the outcome of prehospital treatment of each patient and the response times from dispatch to arrival at the scene of patient treatment for each of the cases;
6. Describe the efforts which have been made or are continuing in the geographic area covered by the plan to minimize ambulance service response times and to provide community education to improve access to emergency medical services and public knowledge of emergency cardiac care;
7. Describe the ambulance attendant defibrillation training course, including content, objectives for individual lessons, clock hours, competency testing standards and procedures, and training methods;
8. Describe the manner in which each ambulance service provider operating under the plan will use ambulance attendant defibrillation personnel, including the number of ambulance attendants to be trained and the service area to be covered;
9. List the equipment to be used by ambulance attendant defibrillation personnel to administer defibrillation, including the brand name, capabilities and technical specifications of each piece of equipment and specify the type of defibrillator to be used by each ambulance service provider included in the plan. Each ambulance service provider shall designate either an automatic or manual defibrillator, but not both, as the type to be used exclusively in its service;
10. Include a copy of the operating policies and procedures to be used in medical control, implementation and evaluation of the ambulance attendant defibrillation program;
11. Include a copy of the department-provided protocol or protocols required under sub. (7)(e), signed by the program medical director, to be followed by ambulance attendant defibrillation personnel in determining the need for defibrillation, administering defibrillation and providing additional emergency care to a pulseless, non-breathing patient;
12. If on-line medical control physicians are to be used in the provision of ambulance attendant defibrillation services under the plan, describe the communications system to be used for the medical control and direction of ambulance attendant defibrillation personnel in the geographic area covered by the plan;
13. Describe the methods by which continuing education and case review will be provided to ambulance attendant defibrillation personnel and continuing competency of those personnel will be assured;
14. Describe the relationship of the proposed ambulance attendant defibrillation program to other emergency and public safety services in the geographic area covered by the plan, including how the program will

be coordinated with and will secure assistance from any advanced life support services existing in the geographical area covered by the plan;

15. Include a copy of agreements or letters of commitment from the hospitals, physicians, ambulance service providers, training center, training course instructor-coordinator, program coordinator and local governments participating in the ambulance attendant defibrillation program indicating their willingness to participate in the program, to fulfill their responsibilities as described in the plan and to adhere to the requirements of this section;

16. Include a copy of a letter of agreement or contract between the program medical director, ambulance service provider or providers, service medical director or directors included in the plan and a quality assurance program. The letter of agreement or contract shall specify that the written record and voice and electrocardiogram recording of each ambulance run in which ambulance attendant defibrillation personnel render treatment to a pulseless, non-breathing patient will be reviewed and evaluated by the quality assurance program;

17. Document insurance coverage which will be in force as of the date proposed for the beginning of the first ambulance attendant defibrillation training course offered under the plan covering all hospitals, physicians, ambulance service providers and ambulance attendant defibrillation personnel included in the ambulance attendant defibrillation program for any liability they incur in the performance of their responsibilities in implementing the program; and

18. Provide evidence of commitment to and endorsement of the proposed program by local and regional medical, governmental and emergency medical services agencies and authorities.

Note: Plans should be sent to the Emergency Medical Services (EMS) Section, Division of Health, P.O. Box 309, Madison, Wisconsin 53701. A guide to assist in developing an ambulance attendant defibrillation plan is available free of charge from the Section.

(c) *Deadline for submission.* The plan shall be submitted to the department in complete form at least 90 days prior to the date proposed for beginning the ambulance attendant defibrillation training course. The plan is not in complete form until all information and materials noted in par. (b) have been received by the department.

(d) *Review and decision.* 1. The department shall, within 75 days following receipt of a plan in complete form, approve or disapprove the plan and notify the applicant accordingly, in writing.

2. In reaching an approval or disapproval decision on any plan, the department shall consult with an advisory committee of physicians and other persons experienced in emergency medical services and familiar with ambulance attendant defibrillation programs regarding the quality and feasibility of the plan. Members of the committee shall be selected by the department secretary. Recommendations of the committee shall not be binding on the department.

3. Approval or disapproval of a plan shall be based on the requirements in this section, consideration of the recommendation of the committee described in subd. 2 and the findings of a site visit by a department representative to the hospital or hospitals, ambulance service or services and training center involved in the plan.

(e) *Implementation.* 1. Following department approval of an ambulance attendant defibrillation plan, all persons named in the plan may implement the program.

2. No change may be made in the ambulance attendant defibrillation program which alters the hospital or hospitals, medical director or directors, or ambulance service provider or providers involved, the training program or ambulance attendant defibrillation program operations included in an approved plan unless the change is approved by the department.

3. The hospital or hospitals, program medical director and ambulance service provider or providers named in the plan shall biennially review the plan and update it as necessary and submit the updated plan to the department. The department shall notify the parties to the plan before the review and update is due and provide a format to be followed for reviewing and updating the plan. Department approval of the review and update shall be required for continuation of plan approval and for continuation of ambulance attendant defibrillation operations.

(7) MEDICAL CONTROL AND DEFIBRILLATION PROTOCOL REQUIREMENTS.

(a) *Program medical director.* An ambulance attendant defibrillation program shall be under the medical supervision of a program medical director identified in the plan. The program medical director shall be responsible for the medical aspects of implementation of the ambulance attendant defibrillation training and operations carried out under the plan and shall:

1. Select, approve or designate the personnel who will train and medically supervise ambulance attendant defibrillation personnel, including the training course medical director, service medical directors, program coordinator, training course instructor-coordinator, and, if they are to be used in the program, the on-line medical control physicians;

2. Sign the protocol or protocols which will be used by ambulance attendant defibrillation personnel in providing defibrillation services under the plan;

3. Ensure that all aspects of the ambulance attendant defibrillation training and operational program are under constant medical supervision and direction;

4. Establish, in consultation with the other physicians involved in the plan, medical control and evaluation policies and procedures for the program;

5. Ensure that evaluation and continuing education activities are consistently carried out and participated in by the hospital or hospitals, physicians, training center, ambulance service providers and ambulance attendants in the ambulance attendant defibrillation program;

6. Ensure that the findings and recommendations of the quality assurance program are implemented; and

7. Ensure that the ambulance attendant defibrillation program operates in conformance with the approved plan, this section and standards of professional practice.

(b) *Other roles filled by the program medical director.* The program medical director may also serve as training course medical director or service medical director, or both.

(c) *On-line medical control physicians.* If an ambulance attendant defibrillation plan includes the use of on-line medical control physicians, each on-line medical control physician shall be designated in writing by the program medical director, shall agree to provide medical control instructions consistent with the approved protocol, and shall be:

1. Familiar with the design and operation of the ambulance attendant defibrillation program under the plan;
2. Experienced in medical control and supervision of prehospital emergency care of the acutely ill or injured;
3. Willing to participate in medical control and evaluation activities in the ambulance attendant defibrillation program; and
4. Familiar with the protocol to be used for the provision of medical control and capable of providing medical control consistent with the protocol by means of the telecommunication devices used in the program.

(d) *Medical control hospital.* The medical control hospital or hospitals designated in the ambulance attendant defibrillation plan shall agree to:

1. If on-line medical control physicians are to be used in the ambulance attendant defibrillation program, support the provision of medical control by permitting designated on-line medical control physicians to use its telecommunications resources for medical control of ambulance attendant defibrillation personnel;
2. Cooperate with the program and service medical directors in implementing the training, continuing education, case review and evaluation activities required in the plan;
3. Ensure that the medical control provided to ambulance attendant defibrillation personnel by on-line medical control physicians at the hospital is consistent with the approved protocol and the medical control policies and procedures established by the program medical director; and
4. Receive patients who have been monitored or defibrillated by ambulance attendant defibrillation personnel and make available to the program and service medical directors and the quality assurance program the patient data necessary to carry out the quality assurance activities required under the plan.

(e) *Ambulance attendant defibrillation protocol.* 1. Each ambulance attendant defibrillation plan shall include a protocol or protocols signed by the program medical director under which ambulance attendant defibrillation personnel will provide emergency care and transportation to the cardiac arrest victim. Voice contact with an on-line medical control physician shall not be required for ambulance attendant defibrillation personnel to implement the protocol.

2. The protocol shall be specific to the type of defibrillator used in the plan. If individual ambulance service providers included in the plan have selected differing types of monitor and defibrillator equipment for use, a protocol shall be included for each type selected.

3. The protocol used shall be the standard protocol developed and distributed by the department, based on the recommendations of the panel established under sub. (6) (d) 2, and shall specify, at a minimum:

a. The sequence of interventions to be performed during a resuscitation attempt;

b. Guidelines for speed of delivery of defibrillation and total time spent with the patient prior to beginning transport;

c. The method of cardiac monitoring and defibrillation to be used;

d. The steps to be taken if the cardiac rhythm encountered is not ventricular fibrillation;

e. Defibrillation safety at the scene and during transport;

f. The maximum number of defibrillations which ambulance attendant defibrillation personnel may administer to a single patient;

g. The assessment and management of a patient who converts from ventricular fibrillation to a different cardiac rhythm after defibrillation;

h. The management of a patient who, after defibrillation, returns to ventricular fibrillation from a different rhythm while in transit to a hospital;

i. Criteria including patient age, weight or medical condition which will affect the performance of defibrillation; and

j. If use of an on-line medical control physician is included in the plan, guidelines for contact with the on-line medical control physician during a resuscitation attempt.

(8) **AMBULANCE ATTENDANT DEFIBRILLATION TRAINING.** (a) The ambulance attendant defibrillation training course shall be under the direction and supervision of the training course medical director who shall:

1. Screen and accept students for admission to the training course;

2. Review the qualifications of and approve the training course instructor-coordinator and instructors who will teach the training course;

3. Review and approve of the evaluation processes and standards used to determine successful completion of the training course;

4. Ensure that the training course complies with the requirements of this section and standards of professional practice; and

5. Provide overall medical supervision, coordination and quality assurance of the training course.

(b) Each training course shall have a training course instructor-coordinator who shall:

1. Be a licensed physician, certified physician's assistant, registered nurse or emergency medical technician-advanced (paramedic);

2. Be certified in advanced cardiac life support by the American heart association or have equivalent cardiac care training and experience acceptable to the training course medical director;

3. Be approved by the training course medical director;

4. Be certified in cardiopulmonary resuscitation by the American heart association or American national red cross;

5. Have a minimum of one year of teaching experience including lecturing, skills instruction and evaluation of student competence in an educational program for prehospital emergency medical care personnel or an equivalent background acceptable to the training course medical director; and

6. Display competence in operating the specific type of monitor and defibrillator used in the training course to the satisfaction of the training course medical director.

(c) *Prerequisites for training course admission.* 1. To be eligible for admission to an ambulance attendant-DA or ambulance attendant-DM training course, an ambulance attendant shall:

1. Be currently licensed as an ambulance attendant by the department;

2. Be currently certified in cardiopulmonary resuscitation by the American heart association or American national red cross;

3. Have a minimum of 6 months' experience in emergency care and transportation as a licensed ambulance attendant;

4. Be affiliated with a licensed ambulance service provider included in an approved ambulance attendant defibrillation plan; and

5. Be accepted for admission to the training course by the service medical director and training course medical director.

(d) *Ambulance attendant defibrillation-DA training.* 1. An ambulance attendant-DA training course shall include theory and practice in at least the following content areas:

a. Introduction to ambulance attendant defibrillation;

b. Patient assessment and evaluation;

c. Cardiac anatomy and physiology;

d. Use and maintenance of the automatic defibrillator;

e. Cardiac defibrillation and the automatic defibrillation protocol;

f. Cardiopulmonary resuscitation as it relates to defibrillation;

g. Skills practice;

h. Final written and practical skills examination approved by the department; and

i. Post-course debriefing.

2. Each content area under subd. 1 shall be designed to meet objectives for individual lessons developed and distributed by the department.

3. The training course content and objectives for individual lessons shall be the same for all ambulance attendant defibrillation-DA training courses implemented under an approved plan.

4. The training course shall include a minimum of 5 hours of classroom instruction, skills practice and competency testing.

(e) *Ambulance attendant defibrillation-DM training.* 1. An ambulance attendant-DM training course shall include theory and practice in at least the following content areas:

- a. Introduction to ambulance attendant defibrillation;
- b. Patient assessment and evaluation;
- c. Cardiac anatomy and physiology;
- d. Cardiac rhythm interpretation;
- e. Use and maintenance of the manual defibrillator;
- f. Cardiac defibrillation and the manual defibrillation protocol;
- g. Cardiopulmonary resuscitation as it relates to defibrillation;
- h. Skills practice;
- i. Final written and practical skills examination approved by the department; and
- j. Post-course debriefing.

2. Each content area under subd. 1 shall be designed to meet objectives for individual lessons developed and distributed by the department.

3. The training course content and objectives for individual lessons shall be the same for all ambulance attendant defibrillation-DM training courses implemented under an approved plan.

4. The training course shall include a minimum of 20 hours of classroom instruction, skills practice and competency testing.

(f) Departmental approval of a proposed training course shall be a prerequisite to the initiation of ambulance attendant defibrillation training. Approval of a training course shall include approval of a curriculum, procedures, administrative details and guidelines necessary to ensure a standardized program.

(g) The training course medical director shall, upon completion of each ambulance attendant defibrillation training course, submit to the department a record of student performance for each ambulance attendant who participated in the course and a list of the ambulance attendants who satisfactorily completed the course.

(9) **MONITOR AND DEFIBRILLATOR EQUIPMENT.** (a) *Required defibrillator components.* Monitors and defibrillators used in an ambulance attendant defibrillation program shall meet the following specifications:

1. A manual defibrillator shall have, at a minimum, an electrocardiographic display, self-adhering monitoring electrodes or pads for placement on a patient's chest, a paper strip recorder for production of a permanent record of the electrical activity of the heart, an integrated audio and electrocardiogram recorder with a microphone for recording the ambulance attendant's voice activity during a resuscitation attempt, and a manually triggered defibrillator for delivery of defibrillation;

2. A fully automatic defibrillator shall have, at a minimum, self-adhering monitoring and defibrillator electrodes or pads for placement on a patient's chest, an integrated audio and electrocardiogram recorder with a microphone for recording the ambulance attendant's voice activity during a resuscitation attempt, and an automatically triggered defibrillator for delivery of defibrillation; and

3. A semiautomatic defibrillator shall have, at a minimum, self-adhering monitoring and defibrillator electrodes or pads for placement on a patient's chest, an integrated audio and electrocardiogram recorder with a microphone for recording the ambulance attendant's voice activity during a resuscitation attempt, and a manually triggered defibrillator for delivery of defibrillation.

(b) *Attachment of electrodes and recording required.* During any prehospital emergency care effort in which the monitor and defibrillator is used, monitoring electrodes or pads shall be attached to the patient and the integrated audio and electrocardiogram recorder shall be in operation. Recording shall commence upon the arrival of the ambulance attendant defibrillation personnel at the patient's side and shall not be terminated until patient care by the ambulance attendant defibrillation personnel is complete.

(c) *Inspection.* All components of the monitor and defibrillator and the integrated audio and electrocardiogram recorder shall be inspected by a qualified service technician not less than 2 times each calendar year to assure maintenance of the equipment to manufacturer's specifications. In this paragraph, "qualified service technician" means a person who has successfully completed training in the maintenance and repair of monitor and defibrillator equipment and possesses current knowledge of the technical troubleshooting and maintenance of monitor and defibrillator equipment with integrated electrocardiogram and voice recording capability. A qualified service technician is not required to be employed by or affiliated with a monitor and defibrillator manufacturer, provided the technician meets the training and knowledge requirements of this paragraph.

(d) *Modification.* No modification may be made to monitor and defibrillator equipment which results in a deviation from manufacturer's standard specifications unless prior approval is received from the department. Prior to deciding on approval or disapproval of a request for equipment modification, the department shall seek recommendations from the committee described in sub. (6) (d) 2. The recommendations of the committee are not binding on the department. A written request for approval of a modification shall include, at a minimum:

1. Documentation of the manufacturer's standard specifications for the equipment;

2. Description of the modification requested;

3. Rationale for the modification and description of its effect on the ambulance attendant defibrillation program; and

4. Documentation that the requested modification, if made, will not expose patients on whom the equipment is used to an increased risk of harm.

(e) *Monitoring with self-adhering electrodes or pads.* Ambulance attendant defibrillation personnel may use only self-adhering electrodes or pads for monitoring the electrical activity of the heart. Quick look technique may not be used. In this paragraph, "quick look technique" means monitoring the electrical activity of the heart by means of defibrillator paddles or other devices which are not self-adhering to a patient's chest.

(f) *Battery systems.* Battery systems for the monitor and defibrillator and integrated audio and electrocardiogram recorder shall be maintained and replaced in accordance with the manufacturer's standard specifications.

(g) *Records.* Ambulance service providers included in an ambulance attendant defibrillation plan shall maintain written records of the maintenance, repair and inspection of all monitor and defibrillator equipment used by ambulance attendant defibrillation personnel. These records shall be available for review by the department on request.

(10) **AMBULANCE SERVICE PROVIDER REQUIREMENTS.** An ambulance service provider using ambulance attendant defibrillation personnel shall:

(a) Submit, as part of the ambulance attendant defibrillation plan, a written plan of action describing the methods the provider is using or will use to minimize response times. A provider shall be exempt from submitting this plan of action if documentation is submitted which establishes that a minimum of 2/3 of the provider's ambulance runs involving a pulseless, non-breathing patient in the year immediately preceding the filing of the ambulance attendant defibrillation plan had a dispatch-to-arrival at the scene of patient treatment response time of 5 minutes or less;

(b) Have a service medical director who is approved by the program medical director and who accepts the responsibility to ensure that:

1. Performance of defibrillation by ambulance attendants is carried out under medical control;

2. Ambulance attendant defibrillation personnel receive continuing education and performance evaluations with sufficient frequency to maintain safe and effective delivery of defibrillation;

3. The defibrillation protocol developed and distributed by the department is used; and

4. Ambulance attendant defibrillation personnel who fail to demonstrate acceptable competency in implementation of the defibrillation protocol are not permitted to engage in the provision of defibrillation services until they have been reevaluated and have demonstrated competency in performance of the protocol to his or her satisfaction.

(c) Provide the service medical director with sufficient access to ambulance attendant defibrillation personnel to enable the service medical director to carry out the responsibilities specified in par. (b);

(d) Ensure that any monitor and defibrillator used by ambulance attendant defibrillation personnel affiliated with the provider is of the type specified for the provider in the plan and meets the requirements of this section;

(e) Ensure that, when a patient is being cared for or transported using a monitor and defibrillator, the ambulance is staffed by at least one licensed ambulance attendant who is certified to operate the type of defibrillator used by the ambulance service and one additional licensed ambulance attendant. A certified ambulance attendant-DA or ambulance attendant-DM shall be with the patient during the period of emergency care and transportation. A licensed physician, registered nurse, certified physician's assistant or licensed emergency medical technician-advanced (paramedic) designated by the program or service medical director may replace the ambulance attendant-DA or ambulance attendant-DM required by this paragraph;

(f) Ensure that ambulance attendant defibrillation service is available on a 24-hour-a-day, 7-day-a-week basis to its service area as described in the plan; and

(g) Ensure that all written records, monitor and defibrillator recordings and voice and electrocardiogram recordings of each ambulance run in which ambulance attendant defibrillation personnel rendered treatment to a pulseless, non-breathing patient are delivered to the program or service medical director for review within 72 hours after the ambulance run and are made available to the quality assurance program described in the plan in a manner which conforms to the applicable requirements of ss. 146.35 (9), 146.50 (12), 146.81, 146.82 and 146.83, Stats.

(11) CONTINUING EDUCATION. (a) An ambulance attendant defibrillation plan shall include requirements for continuing education to be completed by ambulance attendant defibrillation personnel. Completion of the continuing education required in the plan shall be a prerequisite to maintaining approval by the program medical director to provide ambulance attendant defibrillation services. Continuing education shall include, at minimum:

1. For an ambulance attendant-DA:

a. Participation in case review and continuing education sessions as required by the program or service medical director;

b. Annual recertification in cardiopulmonary resuscitation by the American heart association or American national red cross; and

c. Demonstration of competent performance of the protocol in a simulated cardiac arrest situation to the satisfaction of the service or training course medical director or the training course instructor-coordinator once a month for the first 3 months following initial certification by the department and once every 6 months thereafter. The demonstration shall be witnessed by the service medical director at least once annually for each ambulance attendant-DA for whom the medical director has responsibility; and

2. For an ambulance attendant-DM:

a. Participation in case review and continuing education sessions as required by the program or service medical director;

b. Annual recertification in cardiopulmonary resuscitation by the American heart association or American national red cross; and

a. Identify the ambulance service provider and ambulance attendants involved;

b. Describe briefly the clinical situation;

c. Report each step while proceeding through the protocol;

d. State whether or not defibrillation is delivered;

e. Describe the observed results of defibrillation and the subsequent pulse check; and

f. Provide explanatory comments on actions taken in preparation for and during transportation.

(b) A requirement for delivery of the written records and voice and electrocardiogram recording of each case to the program or service medical director within 72 hours after the ambulance run involved;

(c) Prompt review and critique of all cardiac arrest runs by the service medical director based on the documentation provided in par. (b) with feedback provided to the ambulance service provider and ambulance attendant defibrillation personnel as soon as possible, but no later than 30 days after the run involved. The review shall be documented on a standard form provided by the department a copy of which is forwarded to the quality assurance program with the case records, and shall include determination of whether:

1. The audio and electrocardiogram recorder was activated properly;

2. Personnel quickly and effectively set up the necessary equipment;

3. The patient's pulse was checked appropriately throughout the emergency response;

4. Defibrillation was performed as rapidly as possible for the patient in ventricular fibrillation;

5. The amount of time spent at the scene was appropriate;

6. Adequate basic life support was delivered and maintained;

7. Personnel using a manual defibrillator obtained a clear reading of the electrocardiographic rhythm immediately prior to each defibrillation attempt;

8. The assessment of the need to deliver or not deliver defibrillation was correct;

9. Following each attempted defibrillation, the patient was assessed accurately and treated appropriately;

10. The portable defibrillator was operated safely and correctly; and

11. Care was provided to comply with the protocol.

(d) Annual review by the hospital or hospitals, physicians, and ambulance service provider or providers involved in the ambulance attendant defibrillation program of the implementation and impact of the program including determination of whether:

c. Demonstration of competent performance of the protocol in a simulated cardiac arrest situation to the satisfaction of the service or training course medical director or the training course instructor-coordinator once a month for the first 3 months following initial certification by the department and once every 3 months thereafter. The demonstration shall be witnessed by the service medical director at least once annually for each ambulance attendant-DM for whom the medical director has responsibility.

(b) The program or service medical director may require additional continuing education of ambulance attendant defibrillation personnel functioning under the plan. Any additional requirements set by the program or service medical director shall be described in the plan.

(c) An ambulance attendant-DA or ambulance attendant-DM who fails to satisfy the continuing education requirements set forth in the plan or who fails to demonstrate competent performance in a required cardiac arrest simulation shall be removed from providing ambulance attendant defibrillation services until the program or service medical director has reviewed the individual's performance and approves the individual to return to service. The program or service medical director shall immediately inform the department in writing of the removal of the individual from service and shall inform the department of the date the individual is returned to service.

(d) Each ambulance service provider shall retain documentation establishing that each ambulance attendant-DA or ambulance attendant-DM affiliated with the service has satisfied the continuing education requirements. The ambulance service provider shall make the documentation available to the department for review upon request.

(12) EVALUATION. Each ambulance attendant defibrillation plan shall contain an evaluation process which includes, at a minimum:

(a) Maintenance of documentation by ambulance attendant defibrillation personnel of each case in which treatment was rendered to a pulseless, non-breathing patient by the personnel. Documentation shall consist of a written report, on a form approved by the department, for each case and a voice and electrocardiogram recording for each case in which cardiopulmonary resuscitation, monitoring or defibrillation was performed. In making the voice recording:

1. The ambulance attendant-DM shall:

a. Identify the ambulance service provider and ambulance attendants involved;

b. Describe briefly the clinical situation;

c. Report each step while proceeding through the protocol;

d. State whether the rhythm is interpreted as ventricular fibrillation;

e. State whether or not defibrillation is delivered;

f. Describe any post-defibrillation cardiac rhythms; and

g. Provide explanatory comments on actions taken in preparation for and during transportation.

2. The ambulance attendant-DA shall:

1. The general public is responding appropriately to a person who may be in cardiac arrest;
2. The frequency of cases in which cardiopulmonary resuscitation is initiated by persons on the scene prior to the arrival of ambulance attendant personnel is maximized;
3. The time between dispatch and the arrival of ambulance attendant defibrillation personnel is as short as possible;
4. Performance factors, such as minimum elapsed time from arrival at scene to first defibrillation attempt, are optimized;
5. Backup of ambulance attendant defibrillation personnel by advanced life support services is provided as rapidly as possible;
6. Patient transport is accomplished as expeditiously as possible;
7. Data necessary to evaluate the implementation of the plan are being accurately gathered and periodically reviewed; and
9. Appropriate modifications are made in any aspects of the plan which are shown to need modification to optimize patient outcomes.

(e) Participation, under a contract or letter of agreement, in a quality assurance program to which copies of the documentation of each cardiac arrest response as required in par. (a) shall be sent by the program or service medical director at least once each calendar quarter. The quality assurance program shall meet the requirements set in sub. (13) and shall be approved by the department.

(13) QUALITY ASSURANCE PROGRAM. (a) To qualify for approval under this section, a quality assurance program shall:

1. Apply to the department on a form prescribed by the department;
2. Be under the direction of a physician licensed under ch. 448, Stats., who is certified in advanced cardiac life support by the American heart association, highly skilled in cardiac rhythm interpretation, possesses a working knowledge of prehospital emergency medical services systems and ambulance attendant defibrillation programs, and is able to make a sufficient time commitment to actively participate in the review of individual case records and formulation of required periodic reports;
3. Have sufficient staff to ensure that case records will be reviewed in a timely and competent manner, data will be logged accurately and promptly, statistical analyses and summaries will be performed competently and efficiently, critical errors occurring in any ambulance attendant defibrillation program will be identified and responded to competently and quickly and recommendations for improvements and modification in ambulance attendant defibrillation programs will be made in a timely and appropriate manner;
4. Have sufficient data gathering and analysis resources to maintain a computerized database of all case records reviewed and produce summary and analytical reports on a service, region and aggregate basis in a timely fashion; and
5. Have experience in and an effective system established for handling medical care records with appropriate safeguards for confidentiality.

(b) A quality assurance program shall, at a minimum, provide the following services to an ambulance attendant defibrillation program:

1. Review and evaluation of written reports and voice and electrocardiogram recordings from ambulance attendant defibrillation cases within 60 days of receipt;

2. Computerized database of ambulance attendant defibrillation runs for analysis and reporting as requested by the program medical director;

3. Summary reports and recommendations for improvement of the ambulance attendant defibrillation program to the program or service medical director on at least a quarterly basis;

4. Advice to the program and service medical director on improvements which could be made in the evaluation activities carried out in the ambulance attendant defibrillation program;

5. Notification of serious ambulance attendant defibrillation personnel performance errors as soon as noted and recommendations for action to correct the noted errors; and

6. An annual summary report of the data collected for the service or program including, at a minimum:

a. Patient data including age, sex, whether cardiac arrest was witnessed or unwitnessed, distance from the location of the ambulance when dispatched to the scene of cardiac arrest and initial cardiac rhythm;

b. Emergency medical services system data including time of cardiac arrest, time of receipt of call for ambulance, time from collapse to initiation of cardiopulmonary resuscitation, time of initial defibrillation attempt, chronology of subsequent defibrillation attempts and effect, and time of arrival at the hospital;

c. Ambulance attendant defibrillation personnel performance data including accuracy of rhythm interpretations, time from arrival to initial defibrillation, time between defibrillation attempts, appropriateness of management for each rhythm encountered and adherence to protocol; and

d. Patient outcome data including the rhythm after each shock, whether there was a return of pulse in the field, whether a patient was admitted to hospital, whether a patient was discharged from the hospital and health status on discharge.

(c) The quality assurance program shall notify the program and service medical directors immediately when it notes a performance error it considers serious during the review of case records provided by that ambulance attendant defibrillation program. The notification shall be accompanied by a recommendation for action to address the error. The program or service medical director shall advise the quality assurance program within 90 days of receiving notification of any action taken regarding the identified error. The quality assurance program shall advise the department of the resolution of the error immediately following the expiration of the 90 day period.

(d) The quality assurance program shall report annually to the department on its activities. The report shall include an annual summary of all data collected from ambulance attendant defibrillation programs to be

used in development of a statewide statistical report. The annual report and data summary shall be in a form prescribed by the department.

(14) CERTIFICATION. (a) A person requesting certification as an ambulance attendant-DA or ambulance attendant-DM shall:

1. Apply for certification on forms provided by the department;
2. Be at least 18 years of age;
3. Hold a currently valid ambulance attendant license issued by the department;
4. Be affiliated with an ambulance service provider identified in an approved ambulance attendant defibrillation plan;
5. Present evidence of satisfactory completion of an approved ambulance attendant defibrillation-DA or ambulance attendant-DM training course;
6. Present documentation signed by the program medical director and acceptable to the department of competence in the performance of defibrillation according to the protocol for the certification category involved; and

7. Have successfully passed the written and practical skills examination required under sub. (8) (d) or (e) no more than 6 months prior to the date of application. A person who fails to achieve a passing grade on the required examination may request reexamination and may be reexamined once within a 60 day period. A person who fails to achieve a passing grade on reexamination shall be admitted for further examination only after presenting evidence of successful completion of further ambulance attendant defibrillation training acceptable to the department. A person who does not apply for certification within 6 months after successfully passing the required examination shall be required to complete a new ambulance attendant defibrillation training course and examination to be eligible for certification.

(b) Within 60 days after receiving a complete application for ambulance attendant-DA or ambulance attendant-DM certification, the department shall either approve the application and certify the applicant or deny the application. If the application for certification is denied, the department shall give the applicant reasons, in writing, for the denial and shall give the applicant an opportunity to appeal the denial in accordance with sub. (16) (e).

(c) Certification shall be evidenced by an endorsement to the ambulance attendant license of the qualified applicant and shall indicate whether the person is certified as an ambulance attendant-DA or ambulance attendant-DM, or both.

(d) A person certified as an ambulance attendant-DA may perform defibrillation using only an automatic defibrillator and following the fully automatic or semiautomatic defibrillator protocol included in the plan for the provider for which he or she is authorized to function as an ambulance attendant-DA.

(e) A person certified as an ambulance attendant-DM may perform defibrillation using only a manual defibrillator and following the manual

defibrillator protocol included in the plan for the provider for which he or she is authorized to function as an ambulance attendant-DM.

(15) **RENEWAL OF CERTIFICATION.** (a) Application for renewal of an ambulance attendant-DA or ambulance attendant-DM certification shall be made biennially concurrent with application for renewal of the ambulance attendant license. Application for renewal shall be made by the person certified on forms provided by the department and shall be signed by the program medical director responsible for the ambulance attendant defibrillation program involved. Each ambulance attendant-DA and ambulance attendant-DM certificate shall expire on June 30 of even-numbered years.

(b) A person whose ambulance attendant-DA or ambulance attendant-DM certification has been expired for more than 60 days shall be required to complete a new ambulance attendant defibrillation training program and meet the other qualifications for initial certification prior to being issued certification.

Note: Copies of application forms for certification and renewal of certification are available without charge from the EMS Section, Wisconsin Division of Health, P.O. Box 309, Madison, WI 53701.

(16) **DENIAL OR REMOVAL OF CERTIFICATION.** (a) *Certification denial, nonrenewal, revocation or suspension.* The department may deny, refuse to renew, suspend or revoke an ambulance attendant-DA or ambulance attendant-DM certification after providing the applicant, ambulance attendant-DA or ambulance attendant-DM with prior written notice of the proposed action and written notice of opportunity for a hearing if the department finds that:

1. The applicant or person certified does not meet the eligibility requirements established in this section;
2. Certification was obtained through error or fraud;
3. Any provision of this section is violated; or
4. The person certified has engaged in conduct detrimental to the health or safety of a patient or to members of the general public during a period of emergency care or transportation.

(b) *Emergency suspension of certificate.* 1. The department may summarily suspend an ambulance attendant-DA or ambulance attendant-DM certificate when the department is informed by the project medical director that the certificate holder has been removed from the ambulance attendant defibrillation program for cause or the department has probable cause to believe that the holder of the certificate has violated the provisions of this section and that it is necessary to suspend the certification immediately to protect the public health, safety or welfare.

2. Written notice of the suspension, the department's proposed additional action or actions and a written notice of the right to request a hearing shall be sent to the ambulance attendant-DA or ambulance attendant-DM. A request for a hearing shall be submitted in writing to and received by the department's office of administrative hearings within 30 days after the date of the notice of suspension. The office of administrative hearings shall schedule the hearing no later than 15 days after receiving the request for hearing unless both parties agree to a later date and shall provide at least 10 days' prior notification of the date, time and

place for the hearing. The hearing examiner shall issue a proposed or final decision within 10 days after the hearing. The suspension of the ambulance attendant-DA or ambulance attendant-DM certificate shall remain in effect until a final decision is rendered.

(c) *Action on ambulance attendant-DA or ambulance attendant-DM certificate not to affect ambulance attendant license.* Denial, refusal to renew, expiration, suspension or revocation of an ambulance attendant-DA or ambulance attendant-DM certificate shall not affect licensure as an ambulance attendant unless action is also taken under s. H 20.03 (4) against the ambulance attendant license.

(d) *Action on ambulance attendant licensure affects ambulance attendant-DA and ambulance attendant-DM certificates.* Denial, refusal to renew, expiration, suspension or revocation of an ambulance attendant license under s. H 20.03 (4), shall have an identical effect on any ambulance attendant-DA or ambulance attendant-DM certification attached to the license.

(e) *Appeal.* In the event that, under par. (a), the department denies issuance or renewal of, suspends or revokes an ambulance attendant-DA or ambulance attendant-DM certification, the applicant or ambulance attendant-DA or ambulance attendant-DM may request a hearing under s. 227.42, Stats. The request for a hearing shall be submitted in writing to and received by the department's office of administrative hearings within 30 days after the date of the notice required under par. (a).

Note: The mailing address of the Office of Administrative Hearings is P.O. Box 7875, Madison, WI 53707.

(17) CANCELLATION OF APPROVAL. (a) *Plan approval.* The department may, at any time, cancel its approval of an ambulance attendant defibrillation plan if parties to the plan fail to adhere to the plan, if parties to the plan violate the provisions of this section, or there is evidence that the ambulance attendant defibrillation program operated under the plan presents a danger to the health and safety of patients or the general public. All persons involved in the implementation of the plan shall cease the provision of ambulance attendant defibrillation services upon written notice mailed to the program medical director, except that ambulance attendant defibrillation services may continue pending appeal under par. (d).

(b) *Provider approval.* The department may, at any time, cancel its approval of the participation by a specific ambulance service provider or providers in an ambulance attendant defibrillation plan if the provider or providers fail to adhere to the approved plan, violate the provisions of this section or engage in activities in the ambulance attendant defibrillation program that present a danger to the health and safety of patients or the general public. The ambulance service provider or providers shall cease the provision of ambulance attendant defibrillation services upon written notice mailed to the owner or operator for each ambulance service provider involved, except that ambulance attendant defibrillation services may continue pending appeal under par. (d).

(c) *Emergency cancellation.* 1. The department may summarily suspend approval of an ambulance attendant defibrillation plan or the participation of an ambulance service provider or providers in an ambulance attendant defibrillation plan when the department has probable cause to believe that implementation of the plan or operation of the ambulance

service provider or providers under the plan fails to adhere to the plan or violates the provisions of this section and that it is necessary to suspend approval of the plan or the participation of the ambulance service provider or providers in the plan immediately to protect the public health, safety or welfare.

2. Written notice of the suspension, the department's proposed additional action or actions and written notice of the right to request a hearing shall be sent to the program medical director, in the case of cancellation of plan approval, or the owner or operator of each ambulance service provider involved, in the case of cancellation of provider participation. A request for a hearing shall be submitted in writing to and received by the department's office of administrative hearings within 30 days after the date of the notice of suspension. The office of administrative hearings shall schedule the hearing no later than 15 days after receiving the request for hearing unless both parties agree to a later date and shall provide at least 10 days' prior notification of the date, time and place for the hearing. The hearing examiner shall issue a proposed or final decision within 10 days after the hearing. The suspension of plan approval or provider participation shall remain in effect until a final decision is rendered.

(d) *Appeal.* In the event that, under par. (a) or (b), the department cancels an ambulance attendant defibrillation plan or participation by an ambulance service provider or providers in the plan, the program medical director, in the case of cancellation of plan approval, or the owner or operator for each ambulance service provider involved, in the case of cancellation of provider participation, may request a hearing under s. 227.42, Stats. The request for a hearing shall be submitted in writing to and received by the department's office of administrative hearings within 30 days after the date of the notice required under par. (a) or (b).

(18) CONTINUATION OF EXISTING DEMONSTRATION PROJECTS. (a) Any ambulance attendant defibrillation demonstration project operating on June 30, 1988 may continue to operate in accordance with its existing approved proposal for a period not to exceed 6 months, if the project medical director provides written notice of intent to continue no later than 30 days after July 1, 1988. No ambulance attendant or ambulance service provider may provide ambulance attendant defibrillation services after 30 days have elapsed from July 1, 1988, unless the project medical director has provided the required notice of intent to the department.

(b) Any ambulance attendant or ambulance service provider participating in an approved ambulance attendant defibrillation demonstration project who wishes to continue to provide ambulance attendant defibrillation service beyond 6 months following July 1, 1988, shall become part of an ambulance attendant defibrillation plan approved under this section prior to the expiration of the 6 month period. If an ambulance service provider becomes included in an approved ambulance attendant defibrillation plan using a manual defibrillator, the provider may retain and use the manual defibrillator or defibrillators which the provider has used in the ambulance attendant defibrillation demonstration project for the remainder of the useful life of the manual defibrillator or defibrillators. Replacement monitors and defibrillators purchased for use by the provider shall meet the requirements of sub. (9).

(c) Any ambulance attendant who, on June 30, 1988, was authorized to provide defibrillation services as part of an approved ambulance attendant defibrillation proposal and who is employed by an ambulance service provider which becomes included in an approved ambulance attendant defibrillation plan using manual defibrillators shall be eligible for certification as an ambulance attendant-DM upon presentation to the department of a written recommendation for certification from the program medical director.

(d) Any ambulance service provider who has been a participant in an approved ambulance attendant defibrillation demonstration project and who becomes a part of an approved ambulance attendant defibrillation plan using automatic defibrillators shall submit to the department a proposed method of converting its service from manual to automatic defibrillation and training its ambulance attendants for certification as ambulance attendants-DA. The proposal shall be accompanied by written endorsement of the program medical director. Upon approval of the proposal by the department, the provider shall be permitted to use both manual and automatic defibrillators for a period not to exceed one year while the transition from manual to automatic defibrillators is completed. At the expiration of the one year period, the provider shall have completed the conversion and shall use only automatic defibrillators and ambulance attendants-DA in the ambulance attendant defibrillation program.

(e) No ambulance attendant or ambulance service provider may engage in providing ambulance attendant defibrillation services under an ambulance attendant defibrillation demonstration project after the last day of the sixth month following July 1, 1988.

History: Cr. Register, January, 1985, No. 349, eff. 2-1-85; emerg. am. (4) (c) 4., eff. 6-29-87; am. (4) (c) 4., Register, October, 1987, No. 382, eff. 11-1-87; r. and recr. Register, June, 1988, No. 390, eff. 7-1-88; reprinted to correct error in (11) (a) 2.c., Register, August, 1988, No. 392.