



STATE OF IDAHO
EMS PHYSICIAN COMMISSION
STANDARDS MANUAL

Authority:

Idaho Code § 56-1013A, § 56-1016, and § 56-1017(1)

Rules for EMS Physician Commission Idaho Administrative Procedures Act 16.02.02

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I. DEFINITIONS.

As promulgated by and in addition to the applicable definitions in Section 56-1012, Idaho Code, and IDAPA 16.02.03, Idaho Department of Health and Welfare, "Rules Governing Emergency Medical Services," the following terms are used in this manual as defined below:

Advanced Emergency Medical Technician (AEMT). A person who holds a current active license or certification issued by the EMS Bureau at the Advanced Emergency Medical Technician or Advanced Emergency Medical Technician-Ambulance level and is in good standing with no restriction upon, or actions taken against, his license.

Affiliation. The recognition of an individual as a member or employee.

Certification. A license issued by the EMS Bureau to an individual for a specified period of time indicating that minimum standards corresponding to one (1) of several levels of EMS proficiency have been met.

Certified EMS Personnel. Individuals who possess a valid certification issued by the EMS Bureau.

Contemporaneous. Originating, existing, or occurring during the same period of time.

Credentialed EMS Personnel. Individuals who are authorized to provide medical care by the EMS medical director, hospital supervising physician, or medical clinic supervising physician.

Credentialing. The local process by which certified EMS personnel are authorized to provide medical care in the out-of-hospital, hospital, and medical clinic setting, including the determination of a local scope of practice.

Critical Care Paramedic. A person who holds a current active license or certification issued by the EMS Bureau at the Paramedic or Emergency Medical Technician-Paramedic level and has successfully completed training objectives as set forth in the Critical Care Transport Curriculum Guide of the EMS Bureau and who possesses a current active credential to provide Critical Care.

Critical Care Transport. The transportation of a patient with continuous care, monitoring, medication, or procedures requiring knowledge or skills not contained within the Paramedic curriculum approved by the State Health Officer.

Designated Clinician. A licensed Physician Assistant (PA) or Nurse Practitioner designated by the EMS medical director, hospital supervising physician, or medical clinic supervising physician who is responsible for direct (on-line) medical supervision of certified EMS personnel in the temporary absence of the EMS medical director.

Direct (On-Line) Supervision. Contemporaneous instructions and directives about a specific patient encounter provided by a physician or designated clinician to certified EMS personnel who are providing medical care.

Emergency Medical Services (EMS). The services utilized in responding to a perceived individual need for immediate care in order to prevent loss of life or aggravation of physiological or psychological illness or injury.

Emergency Medical Services Bureau. The Emergency Medical Services Bureau of the Idaho Department of Health and Welfare.

Emergency Medical Services Physician Commission. The Idaho Emergency Medical Services Physician Commission as created under Section 56-1013A, Idaho Code, hereafter referred to as “the Commission.”

Emergency Medical Responder (EMR). A person who holds a current active license or certification issued by the EMS Bureau at the First Responder or Emergency Medical Responder level and is in good standing with no restriction upon, or actions taken against, his license.

Emergency Medical Technician (EMT). A person who holds a current active license or certification issued by the EMS Bureau at the Emergency Medical Technician or Emergency Medical Technician-Basic level and is in good standing with no restriction upon, or actions taken against, his license.

EMS Agency. An organization licensed by the EMS Bureau to provide emergency medical services in Idaho.

EMS Medical Director. A physician who supervises the medical activities of certified personnel affiliated with an EMS agency.

Hospital. A facility in Idaho licensed under Sections 39-1301 through 39-1314, Idaho Code, and defined in Section 39-1301(a)(1), Idaho Code.

Hospital Supervising Physician. A physician who supervises the medical activities of certified EMS personnel while employed or utilized for delivery of services in a hospital.

Indirect (Off-Line) Supervision. The medical supervision, provided by a physician, to certified EMS personnel who are providing medical care including EMS system design, education, quality management, patient care guidelines, medical policies, and compliance.

Medical Clinic. A place devoted primarily to the maintenance and operation of facilities for outpatient medical, surgical, and emergency care of acute and chronic conditions or injury.

Medical Clinic Supervising Physician. A physician who supervises the medical activities of certified EMS personnel while employed or utilized for delivery of services in a medical clinic.

Medical Supervision. The advice and direction provided by a physician, or under the direction of a physician, to certified EMS personnel who are providing medical care, including direct and indirect supervision.

Medical Supervision Plan (MSP). The written document describing the provisions for medical supervision of certified EMS personnel.

Nurse Practitioner. An Advanced Practice Professional Nurse, licensed in the category of Nurse Practitioner, as defined in IDAPA 23.01.01, “Rules of the Idaho Board of Nursing.”

Out-of-hospital. Any setting outside of a hospital, including inter-facility transfers, in which the provision of emergency medical services may take place.

Paramedic. A person who holds a current active license or certification issued by the EMS Bureau at the Paramedic or Emergency Medical Technician-Paramedic level and is in good standing with no restriction upon, or actions taken against, his license.

Physician. A person who holds a current active license issued by the Board of Medicine to practice medicine and surgery or osteopathic medicine or surgery in Idaho and is in good standing with no restriction upon, or actions taken against, his license.

Physician Assistant. A person who meets all the applicable requirements to practice as a licensed physician assistant under Title 54, Chapter 18, Idaho Code, and IDAPA 22.01.03, “Rules for the Licensure of Physician Assistants.”

II. EMS Physician Commission Standards Manual Authority

Idaho Code 56-1013A(1) empowers the EMS Physician Commission with statutory authority to establish standards for scope of practice and medical supervision for certified personnel, ambulance services, and non-transport agencies licensed by the EMS Bureau. Idaho Code 56-1017(1) specifically authorizes and directs the Commission to adopt appropriate rules defining the allowable scope of practice and acts and duties which can be performed by persons certified by the department and the required level of supervision by a licensed physician.

IDAPA 16.02.02, "Rules of the EMS Physician Commission," Section 004 incorporate this EMS Physician Commission Standards Manual by reference. The purposes of this EMS Physician Commission Standards Manual are to establish the scope of practice of certified EMS personnel and to specify the type and degree of medical supervision for specific skills, treatments, and procedures by level of EMS certification.

III. EMS Personnel Authority to Act

To provide emergency medical services, EMS certified personnel must comply with Idaho Code and IDAPA 16.02.02, "Rules of the EMS Physician Commission." The policies of the EMS Physician Commission are documented in this Standards Manual.

Certified EMS personnel who are representing an Idaho EMS agency and who possess a valid credential issued by that agency's EMS medical director may act and provide services in the out-of-hospital setting under the following conditions:

1. When participating in a planned deployment of personnel resources approved by the EMS medical director; or
2. When administering first aid or emergency medical attention as a "Good Samaritan" and without expectation of remuneration in accordance with Idaho Code 5-330 or 5-331 in a manner approved by the EMS medical director; or
3. When participating in a training program approved by the EMS Bureau or the EMS medical director.

In addition, certified EMS personnel may only provide out-of-hospital care when:

1. The patient care does not exceed the scope of practice as defined by this Standards Manual; and
2. Certified EMS personnel have been trained, based on curricula or specialized training approved according to IDAPA 16.02.03, Idaho Department of Health and Welfare, "Rules Governing Emergency Medical Services;" and
3. The patient care does not exceed the scope of practice approved by their EMS medical director and does not include assessments or interventions that have been specifically prohibited by their EMS medical director.

Certified EMS personnel who are representing a hospital or medical clinic and who possess a valid credential issued by the hospital or medical clinic supervising physician may act and provide services in the hospital and medical clinic setting under the following conditions:

1. When participating in a planned deployment of personnel resources approved by the hospital or medical clinic supervising physician; or
2. When administering first aid or emergency medical attention as a "Good Samaritan" and without expectation of remuneration in accordance with Idaho Code 5-330 or 5-331 in a manner approved by the hospital or medical clinic supervising physician; or
3. When participating in a training program approved by the EMS Bureau or the hospital or medical clinic supervising physician.

In addition, certified EMS personnel may only provide hospital and medical clinic care when:

1. Certified EMS personnel have been trained, based on curricula or specialized training approved according to IDAPA 16.02.03, Idaho Department of Health and Welfare, "Rules Governing Emergency Medical Services," or additional training approved by the hospital or medical clinic supervising physician and
2. The patient care does not exceed the scope of practice approved by their hospital or medical clinic supervising physician and does not include assessments or interventions that have been specifically prohibited by their hospital or medical clinic supervising physician.

IV. OUT-OF-HOSPITAL SUPERVISION

All Idaho-licensed EMS agencies, including hospital-based EMS agencies, must comply with the requirements described in this section. Hospital-based EMS agencies must comply with both the requirements described in this section and with the hospital and clinic supervision requirements described later in this Standards Manual when their certified EMS personnel also have patient care duties in the hospital or clinic setting.

EMS Medical Director Qualifications, Authority and Responsibility.

In accordance with Section 56-1011, Idaho Code, certified EMS personnel must provide emergency medical services under the supervision of a designated EMS medical director.

1. The EMS agency must designate a physician for the medical supervision of certified EMS personnel affiliated with the EMS agency.
2. The EMS medical director can designate other physicians to supervise the certified EMS personnel in the temporary absence of the EMS medical director.

The EMS medical director will have a written agreement with the EMS agency(s) that includes the following elements:

1. Identification of the EMS agency(s) for which he provides medical supervision.
2. Acknowledgement of the authority of the EMS medical director as established in Idaho

statute and IDAPA 16.02.02, “Rules of the EMS Physician Commission.”

3. An effective date.
4. An expiration date or a provision for automatic renewal upon mutual agreement.
5. Assurance of EMS medical director access to relevant agency, hospital, or medical clinic records as permitted or required by statute to ensure responsible medical supervision of certified EMS personnel.

The EMS medical director will provide the EMS Bureau with documentation of the written agreement annually or upon request.

The EMS medical director must:

1. Accept responsibility for the medical direction and medical supervision of the activities provided by certified EMS personnel.
2. Obtain and maintain knowledge of the contemporary design and operation of EMS systems.
3. Obtain and maintain knowledge of Idaho EMS laws, regulations and standards manuals.

The EMS medical director is authorized to:

1. Provide explicit approval for certified EMS personnel under his supervision to provide medical care. Certified EMS personnel may not provide medical care without the explicit approval of an EMS medical director.
2. Credential certified EMS personnel under his supervision with a scope of practice. This scope of practice may be limited relative to the scope of practice authorized by the Commission and may not exceed the scope of practice established by the Commission.
3. Restrict the scope of practice of certified EMS personnel under his supervision and withdraw approval of certified EMS personnel to provide services when such personnel fail to meet or maintain proficiencies established by the EMS medical director or the Idaho EMS Bureau.
 - Such restriction or withdrawal of approval must be reported in writing within fifteen (15) days of the action to the EMS Bureau in accordance with Section 39-1393, Idaho Code.

The EMS medical director is responsible for:

1. Approving the planned deployment of personnel resources.
2. Approving the manner in which certified EMS personnel administer first aid or emergency medical attention as a “Good Samaritan” in accordance with Section 5-330 or 5-331, Idaho Code, without expectation of remuneration.
3. Documenting the review of the qualification, proficiencies, and all other EMS agency, hospital, and medical clinic affiliations of EMS personnel prior to credentialing the individual.

4. Documenting that the capabilities of certified EMS personnel are maintained on an ongoing basis through education, skill proficiencies, and competency assessment.
5. Developing and implementing a program for continuous assessment and improvement of services by certified EMS personnel under their supervision.
6. Reviewing and updating protocols, policies, and procedures at least every two (2) years.
7. Developing, implementing and overseeing a Medical Supervision Plan, as defined in this Standards Manual.
8. Collaborating with other EMS medical directors, hospital supervising physicians, and medical clinic supervising physicians to ensure EMS agencies and certified EMS personnel have protocols, standards of care, and procedures that are consistent and compatible with one another.
9. Designating other physicians to supervise certified EMS personnel in the temporary absence of the EMS medical director.
10. Designating Physician Assistants and Nurse Practitioners to serve as designated clinicians, as defined in this Standards Manual.

Direct Medical Supervision by Physician Assistants and Nurse Practitioners.

The EMS medical director can designate Physician Assistants (PA) and Nurse Practitioners for purposes of direct (on-line) medical supervision of certified EMS personnel. Such designated clinicians may only provide direct medical supervision when a designated physician is not present in the anticipated receiving health care facility. The following conditions must also be satisfied:

1. A written agreement between the designated Nurse Practitioner and the EMS medical director which describes the role and responsibilities of the designated Nurse Practitioner is required.
2. A written agreement between the designated PA and the EMS medical director which describes the role and responsibilities of the designated PA related to supervision of EMS personnel is required.
3. Designated clinicians must possess and be familiar with the Medical Supervision Plan, as defined in this Standards Manual, protocols, standing orders, and standard operating procedures authorized by the EMS medical director.
4. The physician supervising the PA, as defined in IDAPA 22.01.03, Idaho Department of Health and Welfare, "Rules for the Licensure of Physician Assistants," must authorize the designated PA to provide direct (on-line) supervision.

Provisions for direct medical supervision by designated clinicians must be documented in the Medical Supervision Plan.

Medical Supervision Plan for the Out-Of-Hospital Setting.

The medical supervision of certified EMS personnel must be provided in accordance with a documented Medical Supervision Plan (MSP) that includes direct, indirect, on-scene,

educational, and proficiency standards components. The EMS medical director is responsible for developing, implementing, and overseeing the MSP. However, non-physicians can assist the EMS medical director with the indirect medical supervision of certified EMS personnel. The EMS medical director will submit the Medical Supervision Plan to the EMS Bureau by November 1, 2008 and thereafter annually or upon request. The EMS Bureau must be notified upon any changes in the Medical Supervision Plan, including changes in designated clinicians, within thirty (30) days of the change(s).

At a minimum, the MSP must consist of the following elements:

A. Credentialing of certified EMS personnel.

Credentialing is an EMS agency process by which certified EMS personnel are authorized by the EMS medical director to provide medical care in accordance with a scope of practice that is established by the EMS medical director. The process for credentialing certified EMS personnel is an extension of the “affiliating” of personnel and is consistent with contemporary EMS system design.

The process for credentialing will include the following:

1. Verification of EMS Bureau certification;
2. Affiliation to the EMS agency;
3. Review of the qualifications and proficiencies of the EMS provider, and all other EMS agency, hospital, and medical clinic affiliations.
4. Completion of an EMS agency orientation, as prescribed by the EMS agency, that includes:
 - a. EMS agency policies;
 - b. EMS agency procedures;
 - c. Medical treatment protocols;
 - d. Radio communications procedures;
 - e. Hospital/facility destination policies;
 - f. Other unique system features; and
 - g. Successful completion of an EMS agency evaluation.

Upon successful completion of the credentialing process, the EMS medical director may issue the EMS provider with a card, certificate, or other document which indicates explicit approval to provide patient care and specifically authorizes a scope of practice for the EMS provider.

- This credential should include a specific expiration date which may be the same date of expiration as the EMS Bureau certification.
- This credential will be sufficient evidence of “affiliation” for his or her certification or recertification by the EMS Bureau, if the dates are inclusive of the certification period and the credential has not been withdrawn by the EMS medical director.

B. Indirect (off-line) medical supervision.

Indirect (off-line) supervision will include all of the following:

1. Written standing orders and treatment protocols including direct (on-line) supervision criteria;
2. Description of authorized optional psychomotor skills and patient care interventions, as defined by the Commission;
3. Initial and continuing education in addition to those required by the EMS Bureau;
4. Methods of assessment and improvement;
5. Periodic assessment of psychomotor skill proficiency;
6. Provisions for medical supervision of and defining the patient care provided by certified EMS personnel who are present for a multiple or mass casualty incident, disaster response, or other significant event involving response of certified EMS personnel;
7. Defining the response when certified EMS personnel discover a need for EMS while not on duty;
8. The credentialing of certified EMS personnel for emergency response;
9. The appropriate level of emergency response based upon dispatch information provided by the designated Public Safety Answering Point(s);
10. Triage, treatment, and transport guidelines;
11. Scene management for multiple EMS agencies anticipated to be on scene concurrently;
12. Criteria for determination of patient destination;
13. Criteria for utilization of air medical services in accordance with IDAPA 16.02.03, Idaho Department of Health and Welfare, "Rules Governing Emergency Medical Services," Section 415;
14. Policies and protocols for patient refusal, "treat and release", advanced directives by patients and physicians, determination of death and other predictable patient non-transport scenarios;
15. Criteria for cancellation or modification of EMS response;
16. Equipment authorized for patient care;
17. Medical communications guidelines; and
18. Methods and elements of documentation of services provided by certified EMS personnel.

C. Direct (on-line) medical supervision.

Direct supervision may be accomplished by concurrent communication with the EMS medical director, other physicians designated by the EMS medical director, or designated clinicians, who must be available twenty-four (24) hours a day seven (7)

days a week. Provisions for direct supervision, including on-scene supervision, will be documented in the MSP which shall identify designated clinicians.

The EMS medical director will develop and implement procedures in the event of on-scene supervision by:

1. The EMS medical director or other physician(s) designated by the EMS medical director;
2. A physician with a pre-existing relationship with the patient; and
3. A physician with no pre-existing relationship with the patient who is present for the duration of treatment on scene or transportation.

Direct supervision of certified EMS personnel by other persons is prohibited except in the manner described in the MSP.

D. Standards of supervision and training for students of state-approved training programs.

The EMS medical director, in collaboration with the course medical director or course coordinator, will define standards of supervision and training for students of state-approved training programs, who have been placed for clinical practice and training. These standards will be defined, identified, and documented in the MSP.

V. HOSPITAL AND MEDICAL CLINIC SUPERVISION

Certified EMS Personnel Responsibilities.

The certified EMS personnel employed or utilized for delivery of services within a hospital or medical clinic must:

1. When on duty, visibly display at all times identification specifying their level of EMS certification.
2. Report such employment or utilization to the EMS Bureau within thirty (30) days of engaging in such activity.

Certified EMS personnel will only provide patient care with on-site contemporaneous supervision by the hospital supervising physician, medical clinic supervising physician or designated clinicians, as defined in this Standards Manual.

Hospital Supervising Physician and Medical Clinic Supervising Physician Qualifications, Authority and Responsibility.

In accordance with Section 56-1011, Idaho Code, certified EMS personnel must provide emergency medical services under the supervision of a designated hospital supervising physician or medical clinic supervising physician.

1. The hospital or medical clinic administration must designate a physician for the medical

supervision of certified EMS personnel employed or utilized in the hospital or medical clinic.

2. The hospital supervising physician or medical clinic supervising physician can designate other physicians to supervise the certified EMS personnel during the periodic absence of the hospital supervising physician or medical clinic supervising physician.
3. Certified EMS personnel will only provide patient care with on-site contemporaneous supervision by the hospital supervising physician, medical clinic supervising physician or designated clinicians, who are defined in this Standards Manual.

The hospital supervising physician and medical clinic supervising physician must:

1. Accept responsibility for the medical direction and medical supervision of the activities provided by certified EMS personnel.
2. Obtain and maintain knowledge of the contemporary design and operation of EMS systems.
3. Obtain and maintain knowledge of Idaho EMS laws, regulations and standards manuals.

The hospital supervising physician and medical clinic supervising physician are authorized to:

1. Provide explicit approval for certified EMS personnel under his supervision to provide medical care. Certified EMS personnel may not provide medical care without the explicit approval of a hospital supervising physician or medical clinic supervising physician.
2. Credential certified EMS personnel under his supervision with a scope of practice. This scope of practice may be limited relative to the scope of practice authorized by the Commission. If the authorized scope of practice exceeds the out-of-hospital scope of practice established by the Commission, the hospital supervising physician and/or medical clinic supervising physician must approve additional training to ensure competency in the expanded scope of practice. The Commission recognizes that hospital and medical clinic policies, state rules and the local community standard of care will influence the specific elements of any expanded scope of practice and the development of additional local oversight requirements.
3. Restrict the scope of practice of certified EMS personnel under his supervision and to withdraw approval of certified EMS personnel to provide services when such personnel fail to meet or maintain proficiencies established by the hospital supervising physician or medical clinic supervising physician or the Idaho EMS Bureau.
 - o Such restriction or withdrawal of approval must be reported in writing within fifteen (15) days of the action to the EMS Bureau in accordance with Section 39-1393, Idaho Code.

The hospital supervising physician and medical clinic supervising physician are responsible for:

1. Approving the planned deployment of personnel resources.
2. Approving the manner in which certified EMS personnel administer first aid or emergency medical attention as a “Good Samaritan” in accordance with Section 5-330 or 5-331, Idaho Code, without expectation of remuneration.

3. Approving additional training when the local scope of practice exceeds the out-of-hospital scope of practice established by the Commission.
4. Documenting the review of the qualification, proficiencies, and all other EMS agency, hospital, and medical clinic affiliations of EMS personnel prior to credentialing the individual.
5. Documenting that the capabilities of certified EMS personnel are maintained on an ongoing basis through education, skill proficiencies, and competency assessment.
6. Developing, implementing and overseeing a Medical Supervision Plan, as defined in this Standards Manual.
7. Collaborating with other EMS medical directors, hospital supervising physicians, and medical clinic supervising physicians to ensure EMS agencies and certified EMS personnel have protocols, standards of care and procedures that are consistent and compatible with one another.
8. Designating other physicians to supervise the certified EMS personnel during the periodic absence of the hospital supervising physician or medical clinic supervising physician.
9. Designating Physician Assistants and Nurse Practitioners to serve as designated clinicians, as defined in this Standards Manual.

Direct Medical Supervision by Physician Assistants and Nurse Practitioners.

The hospital supervising physician or medical clinic supervising physician can designate Physician Assistants (PA) and Nurse Practitioners for purposes of direct (on-line) medical supervision of certified EMS personnel under the following conditions:

1. A written agreement between the designated Nurse Practitioner and the hospital supervising physician or medical clinic supervising physician which describes the role and responsibilities of the designated Nurse Practitioner is required,
2. A written agreement between the designated PA and the hospital supervising physician or medical clinic supervising physician which describes the role and responsibilities of the designated PA related to supervision of EMS personnel is required,
3. Designated clinicians must possess and be familiar with the Medical Supervision Plan, as defined in this Standards Manual, protocols, standing orders, and standard operating procedures authorized by the hospital supervising physician or medical clinic supervising physician.
4. The physician supervising the PA, as defined in IDAPA 22.01.03, "Rules for the Licensure of Physician Assistants," must authorize the designated PA to provide direct (on-line) supervision.

Provisions for direct medical supervision by designated clinicians must be documented in the Medical Supervision Plan.

Medical Supervision Plan for the Hospital and Medical Clinic Settings.

The medical supervision of certified EMS personnel must be provided in accordance with a documented medical supervision plan (MSP). The hospital supervising physician or medical clinic supervising physician is responsible for developing, implementing, and overseeing the MSP.

The MSP will include:

1. A credentialing process for certified EMS personnel as defined by the hospital or medical clinic.
2. A current written description of acts and duties authorized by the hospital supervising physician or medical clinic supervising physician for credentialed EMS personnel.
3. The hospital or medical clinic will submit such descriptions upon request of the Commission or the EMS Bureau.
4. Provisions for direct medical supervision by designated clinicians and the identification of designated clinicians.

VI. EMS BUREAU RESPONSIBILITIES.

The EMS Bureau will provide:

1. Technical assistance to medical directors, hospital supervising physicians, medical clinic supervising physicians, and their administrators to develop appropriate Medical Supervision Plans.
2. The Commission with EMS agency Medical Supervision Plans annually and upon request.
3. The Commission with the identification of EMS medical directors and their designated clinicians annually and upon request.

VII. EMS PHYSICIAN COMMISSION RESPONSIBILITIES.

The Commission will provide interpretation of the Rules of the Commission.

VIII. IDAHO AUTHORIZED SCOPE OF PRACTICE.

The Commission has approved the Scope of Practice for certified EMS personnel, which is articulated in Appendix A. Appendix A lists specific psychomotor skills and patient care interventions and indicates the level of EMS certification that may perform each skill or intervention. The EMS Medical Director, Hospital Supervising Physician, or Medical Clinic Supervising Physician must oversee a process to verify competency in all credentialed skills and interventions. The effective date of this Scope of Practice will be July 1, 2008.

It must be noted that not everyone is currently operating at the levels indicated by Xs in

Appendix A and that it is only upon completion of required education, competency assessment, and endorsement or permission by their medical director that a provider can perform the procedures.

EMS personnel will transition to the 2008.1 scope of practice by the end of their current certification period or June 30, 2010, whichever is later.

Appendix A implicitly defines both a “floor” and “ceiling” for each level of EMS certification. Certified EMS personnel must receive training and demonstrate competency in each skill and intervention that lies within their “floor.” Training for skills and interventions within the “floor” is based on curricula or specialized training approved according to IDAPA 16.02.03, Idaho Department of Health and Welfare, “Rules Governing Emergency Medical Services.” Training and competency in skills and interventions within the “floor” are verified by examination and state EMS certification according to IDAPA 16.02.03, Idaho Department of Health and Welfare, “Rules Governing Emergency Medical Services.” Skills and interventions designated by an “X” in Appendix A are included in the “floor” for the specified level of EMS certification.

Skills and interventions designated by “OM” in Appendix A may be authorized by the EMS Medical Director, Hospital Supervising Physician and/or Medical Clinic Supervising Physician and are considered optional. These skills and interventions lie between the “floor” and “ceiling” of the specified level of EMS certification. The EMS Medical Director, Hospital Supervising Physician and/or Medical Clinic Supervising Physician must ensure that certified EMS personnel receive appropriate initial and continuing training for optional skills and interventions. In addition, the EMS Medical Director, Hospital Supervising Physician or Medical Clinic Supervising Physician must take an active role in verifying competency in optional skills and interventions since state EMS certification will not address optional skills and interventions.

Psychomotor skills and patient care interventions that are not designated by either an “X” or “OM” in Appendix A fall outside the Commission’s established Scope of Practice for the specified level of EMS certification and may not be performed by certified EMS personnel at that level in the out-of-hospital setting. As such, Appendix A defines the “ceiling” for the specified level of EMS certification.

Appendix A includes a CC Skills (Critical Care Skills) column that designates optional psychomotor skills and patient care interventions that may be performed by a Paramedic who receives additional training in critical care transport and who is appropriately credentialed by the EMS Medical Director, Hospital Supervising Physician or Medical Clinic Supervising Physician. This formal training program must meet or exceed the applicable objectives of the curriculum approved according to IDAPA 16.02.03, Idaho Department of Health and Welfare, “Rules Governing Emergency Medical Services.” Completion of the entire curriculum is not required. Curriculum objectives are currently listed in the “Idaho EMS Critical Care Transport Curriculum Guide.” The EMS Medical Director, Hospital Supervising Physician and/or Medical Clinic Supervising Physician must ensure that certified EMS personnel receive appropriate initial and continuing training for optional skills and interventions. In addition, the EMS Medical Director, Hospital Supervising Physician or Medical Clinic Supervising Physician must take an active role in verifying competency in optional skills and interventions since state EMS certification will not address optional skills and interventions.

The Commission has created additional requirements for certain psychomotor skills and patient care interventions that, if done improperly, represent a significant hazard to the patient. Additional standards may include but are not limited to on-line medical direction prior to performance of the skill or intervention, completion of specified training prior to credentialing, required elements for Patient Care Report documentation, required elements for performance assessment and improvement and/or compliance with a state-wide protocol or guideline. See Appendices B through E. Skills and interventions with additional requirements are designated in Appendix A by a 1, 2, 3 or 4 alongside the “X” or “OM”.

Emergency Medical Responder (EMR)

The primary focus of the Emergency Medical Responder, also known as a certified First Responder, is to initiate immediate lifesaving care to critical patients who access the emergency medical system. This individual possesses the basic knowledge and skills necessary to provide lifesaving interventions while awaiting additional EMS response and to assist higher level personnel at the scene and during transport. Emergency Medical Responders function as part of a comprehensive EMS response, under medical oversight. Emergency Medical Responders perform basic interventions with minimal equipment.

Description of the Profession

The Emergency Medical Responder’s scope of practice includes simple skills focused on lifesaving interventions for critical patients. Typically, the Emergency Medical Responder renders on-scene emergency care while awaiting additional EMS response and may serve as part of the transporting crew, but not as the primary care giver.

In many communities, Emergency Medical Responders provide a mechanism to increase the likelihood that trained personnel and lifesaving equipment can be rapidly deployed to serious emergencies. In all cases, Emergency Medical Responders are part of a tiered response system. Emergency Medical Responders work alongside other EMS and health care professionals as an integral part of the emergency care team.

The Emergency Medical Responder’s scope of practice includes simple, non-invasive interventions to reduce the morbidity and mortality associated with acute out-of-hospital medical and traumatic emergencies. Emergency care is based on assessment findings. Additionally, the Emergency Medical Responder provides care designed to minimize secondary injury and comfort the patient and family while awaiting additional EMS resources.

A major difference between the lay person and the Emergency Medical Responder is the “duty to act” as part of an organized EMS response.

In some systems, Emergency Medical Responders serve as a part of the crew on transporting EMS units; however, the Emergency Medical Responder is not intended to be the highest level caregiver in such situations. They must function with an EMT or higher level personnel during the transportation of emergency patients. The scope of practice model of an Emergency Medical Responder is limited to simple skills that are effective and can be performed safely in an out-of-hospital setting with medical oversight.

After initiating care, the Emergency Medical Responder transfers care to higher level personnel. The Emergency Medical Responder serves as part of an EMS response system that ensures a progressive increase in the level of assessment and care.

Emergency Medical Technician (EMT)

The primary focus of the Emergency Medical Technician is to provide basic emergency medical care and transportation for critical and emergent patients who access the emergency medical system. This individual possesses the basic knowledge and skills necessary to provide patient care and transportation. Emergency Medical Technicians function as part of a comprehensive EMS response, under medical oversight. Emergency Medical Technicians perform interventions with the basic equipment typically found on an ambulance. The Emergency Medical Technician is a link from the scene to the emergency health care system.

Description of the Profession

The Emergency Medical Technician's scope of practice includes basic skills focused on the acute management and transportation of critical and emergent patients. This may occur at an emergency scene until transportation resources arrive, from an emergency scene to a health care facility, between health care facilities, or in other health care settings.

In many communities Emergency Medical Technicians provide a large portion of the prehospital care. In some jurisdictions, especially rural areas, Emergency Medical Technicians provide the highest level of prehospital care. Emergency Medical Technicians work alongside other EMS and health care professionals as an integral part of the emergency care team.

Emergency Medical Technicians' scope of practice includes basic, non-invasive interventions to reduce the morbidity and mortality associated with acute out-of-hospital medical and traumatic emergencies. Emergency care is based on assessment findings. Additionally, Emergency Medical Technicians provide care to minimize secondary injury and provide comfort to the patient and family while transporting the patient to an emergency care facility.

An Emergency Medical Technician's knowledge, skills, and abilities are acquired through formal education and training. The Emergency Medical Technician has the knowledge of, and is expected to be competent in, all of the skills of the Emergency Medical Responder. A major difference between the Emergency Medical Responder and the Emergency Medical Technician is the knowledge and skills necessary to provide medical transportation of emergency patients.

The Emergency Medical Technician level is the minimum licensure level for personnel transporting patients in ambulances. The scope of practice is limited to basic skills that are effective and can be performed safely in an out-of-hospital setting with medical oversight and limited training.

The Emergency Medical Technician transports all emergency patients to an appropriate medical facility. The Emergency Medical Technician is not prepared to make decisions independently regarding the appropriate disposition of patients. The Emergency Medical Technician serves as part of an EMS response system, assuring a progressive increase in the level of assessment and care. The Emergency Medical Technician may make destination decisions in collaboration with

medical oversight. The principal disposition of the patient encounter will result in the direct delivery of the patient to an acute care facility.

In addition to emergency response, Emergency Medical Technicians often perform medical transport services of patients requiring care within their scope of practice.

Advanced Emergency Medical Technician (AEMT)

The primary focus of the Advanced Emergency Medical Technician is to provide basic and limited advanced emergency medical care and transportation for critical and emergent patients who access the emergency medical system. This individual possesses the basic knowledge and skills necessary to provide patient care and transportation. Advanced Emergency Medical Technicians function as part of a comprehensive EMS response, under medical oversight. Advanced Emergency Medical Technicians perform interventions with the basic and advanced equipment typically found on an ambulance. The Advanced Emergency Medical Technician is a link from the scene to the emergency health care system.

Description of the Profession

The Advanced Emergency Medical Technician's scope of practice includes basic and limited advanced skills focused on the acute management and transportation of critical and emergent patients. This may occur at an emergency scene until transportation resources arrive, from an emergency scene to a health care facility, between health care facilities, or in other health care settings.

For many communities, Advanced Emergency Medical Technicians provide an option to provide high benefit, lower risk advanced skills for systems that cannot support or justify Paramedic level care. This is frequently the case in rural and volunteer systems. In some jurisdictions, Advanced Emergency Medical Technicians are the highest level of prehospital care. In communities which utilize emergency medical dispatch systems, Advanced Emergency Medical Technicians may function as part of a tiered response system. In all cases, Advanced Emergency Medical Technicians work alongside other EMS and health care professionals as an integral part of the emergency care team.

The Advanced Emergency Medical Technician's scope of practice includes basic and limited advanced interventions to reduce the morbidity and mortality associated with acute out-of-hospital medical and traumatic emergencies. Emergency care is based on assessment findings. Additionally, Advanced Emergency Medical Technicians provide care to minimize secondary injury and provide comfort to the patient and family while transporting the patient to an emergency care facility.

The Advanced Emergency Medical Technician's knowledge, skills, and abilities are acquired through formal education and training. The Advanced Emergency Medical Technician has the knowledge associated with, and is expected to be competent in, all of the skills of the Emergency Medical Responder and Emergency Medical Technician. The major difference between the Advanced Emergency Medical Technician and the Emergency Medical Technician is the ability to perform limited advanced skills for emergency patients.

The Advanced Emergency Medical Technician is the minimum licensure level for patients

requiring limited advanced care at the scene or during transportation. The scope of practice is limited to lower risk, high benefit advanced skills that are effective and can be performed safely in an out-of-hospital setting with medical oversight and limited training.

The Advanced Emergency Medical Technician transports all emergency patients to an appropriate medical facility. The Advanced Emergency Medical Technician is not prepared to independently make decisions regarding the disposition of patients. The Advanced Emergency Medical Technician serves as part of an EMS response system assuring a progressive increase in the level of assessment and care. The Advanced Emergency Medical Technician may make destination decisions in collaboration with medical oversight. The principal disposition of the patient encounter will result in the direct delivery of the patient to an acute care facility.

In addition to emergency response, Advanced Emergency Medical Technicians often perform medical transport services of patients requiring care within their scope of practice.

Paramedic

The Paramedic is an allied health professional whose primary focus is to provide advanced emergency medical care for critical and emergent patients who access the emergency medical system. This individual possesses the complex knowledge and skills necessary to provide patient care and transportation. Paramedics function as part of a comprehensive EMS response, under medical oversight. Paramedics perform interventions with the basic and advanced equipment typically found on an ambulance. The Paramedic is a link from the scene into the health care system.

Description of the Profession

The Paramedic's scope of practice includes basic and advanced skills focused on the acute management and transportation of the broad range of patients who access the emergency medical system. This may occur at an emergency scene until transportation resources arrive, from an emergency scene to a health care facility, between health care facilities, or in other health care settings.

In some communities, Paramedics provide a large portion of the prehospital care and represent the highest level of prehospital care. In communities that utilize emergency medical dispatch systems, Paramedics may be part of a tiered response system. In all cases, Paramedics work alongside other EMS and health care professionals as an integral part of the emergency care team.

The Paramedic's scope of practice includes invasive and pharmacological interventions to reduce the morbidity and mortality associated with acute out-of-hospital medical and traumatic emergencies. Emergency care is based on an advanced assessment and the formulation of a field impression. The Paramedic provides care designed to minimize secondary injury and provide comfort to the patient and family while transporting the patient to an appropriate health care facility.

The Paramedic has knowledge, skills, and abilities developed by appropriate formal education and training. The Paramedic has the knowledge associated with, and is expected to be competent

in, all of the skills of the Emergency Medical Responder, Emergency Medical Technician, and Advanced Emergency Medical Technician. The major difference between the Paramedic and the Advanced Emergency Medical Technician is the ability to perform a broader range of advanced skills. These skills carry a greater risk for the patient if improperly or inappropriately performed, are more difficult to attain and maintain competency in, and require significant background knowledge in basic and applied sciences.

The Paramedic is the minimum licensure level for patients requiring the full range of advanced out-of-hospital care. The scope of practice is limited to advanced skills that are effective and can be performed safely in an out-of-hospital setting with medical oversight.

The Paramedic transports all emergency patients to an appropriate medical facility. The Paramedic serves as part of an EMS response system, ensuring a progressive increase in the level of assessment and care. The Paramedic may make treat and release decisions in collaboration with medical oversight. The principal disposition of the patient encounter will result in the direct delivery of the patient to an acute care facility.

In addition to emergency response, Paramedics often perform medical transport services of patients requiring care within their scope of practice.

IX. EMS Proficiency and Performance Assessment Requirement.

Additional performance assessment requirements exist for advanced airway management including all intubation attempts and placements by any personnel affiliated with the EMS agency. The responsibility of the EMS medical director includes implementation of these requirements and EMS personnel compliance pursuant to IDAPA 16.02.02.300.05 and .06. The required data elements to be supplied by every EMS provider who attempts advanced airway management are documented in Appendix E. The data must be collected starting October 1, 2008. The data must be submitted on the form found in Appendix F. In the interest of evaluating aggregate performance, the EMS medical director is required to submit documentation as supplied by the EMS personnel on, at a minimum, a quarterly basis to the EMS Physician Commission. Upon development and adoption of an electronic means of submitting this data by the EMS Physician Commission, the EMS medical director will permit the EMS personnel to submit the data directly to the Commission, records from which will be compiled and supplied to the EMS medical director.

X. Idaho EMS Physician Commission Contact Information

EMSPhysiciancomm@dhw.idaho.gov

www.emspc.dhw.idaho.gov

Idaho EMS Physician Commission
590 W. Washington St.
Boise, Idaho 83702
(208) 334-4000
Fax (208) 334-4015

XI. Idaho EMS Bureau Office Locations

IdahoEMS@dhw.idaho.gov

www.idahoems.org

System Development and Standards & Compliance – Boise Office
590 W. Washington St.
Boise, ID 83702
(208) 334-4633
Fax (208) 334-4015

Standards & Compliance - Twin Falls Office
601 Pole Line Road, Suite 7
Twin Falls, ID 83301
(208) 736-2162
Fax (208) 736-3016

System Development – Idaho Falls Office
150 Shoup #7
Idaho Falls, ID 83402
(208) 525-7047
Fax (208) 525-7049

System Development – Lewiston Office
State Office Building
118 F Street
PO Box Drawer B
Lewiston, ID 83501
(208) 799-4390
Fax (208) 799-3307

EMSPC Scope of Practice - All Levels 2008.1 - Standards Manual

EMSPC 2008.1					
EMSPC 2008.1					
AIRWAY / VENTILATION / OXYGENATION					
Skill	EMR	EMT	AEMT	Paramedic	CC Skills
1			X	X	
2	X	X	X	X	
3	X	X	X	X	
4	X	X	X	X	
5					
6				X	
7					2,OM
8				X	
9			2,OM	X	
10	X	X	X	X	
11				X	
12				X****	
13		X	X	X	
14			2,OM	X	
15				X	
16				X	
17	X	X	X	X	
18				X	
19			2,3,OM	X	
20				X	
21				X	
22				2,3,OM	
23				X	
24			2,3,OM	X	
25					
26	X	X	X	X	
27	X	X	X	X	
28	X	X	X	X	
29	X	X	X	X	
30	X	X	X	X	
31	X	X	X	X	
32	X	X	X	X	
33				X	
34	X	X	X	X	
35	X	X	X	X	
36	X	X	X	X	
37	X	X	X	X	
38	X	X	X	X	
39	X	X	X	X	
40	X	X	X	X	
41					
42		2,OM	2,OM	X	
43				OM	
44			X	X	
45	X	X	X	X	
46				X	
47				X	
48					2,OM

49	EMSPC 2008.1					
50	CARDIOVASCULAR / CIRCULATION					
51	Skill	EMR	EMT	AEMT	Paramedic	CCS
52	EKG - 12-lead data acquisition		2,OM	2,OM	X	
53	EKG - 12-lead interpretation				X	
54	EKG - 3-lead rhythm interpretation				X	
55	Cardiopulmonary Resuscitation (CPR)	X	X	X	X	
56	Cardioversion – Electrical				X	
57	Carotid Massage				X	
58	Defibrillation – Automated / Semi-Automated	X	X	X	X	
59	Defibrillation – Manual				X	
60	Hemorrhage Control – Direct Pressure	X	X	X	X	
61	Hemorrhage Control - Pressure Point	X	X	X	X	
62	Hemorrhage Control – Tourniquet		X	X	X	
63	Impedance Threshold Device (ITD)		OM	OM	OM	
64	IABP monitoring & management					2,OM
65	Pacing - Transvenous & Epicardial – monitoring & managment					2,OM
66	Invasive Hemodynamic Monitoring					2,OM
67	Mechanical CPR Device*		X	X	X	
68	Pericardiocentesis					2,OM
69	Pacing - Transcutaneous				X	
70	Pacing - Permanent/ICD				X****	
71	* = Requires additional specialty training & device approval					
72						
73	EMSPC 2008.1					
74	IMMOBILIZATION					
75	Skill	EMR	EMT	AEMT	Paramedic	CCS
76	Cervical stabilization – Cervical Collar	X	X	X	X	
77	Spinal Immobilization – Long Board	X	X	X	X	
78	Cervical stabilization – Manual	X	X	X	X	
79	Spinal Immobilization – Seated Patient (KED, etc.)	X	X	X	X	
80	Extremity stabilization - Manual	X	X	X	X	
81	Extremity splinting	X	X	X	X	
82	Extremity splinting – Traction		X	X	X	
83	MAST/PASG for pelvic immobilization only		X	X	X	
84	Pelvic immobilization devices		X	X	X	
85						
86	EMSPC 2008.1					
87	VASCULAR ACCESS / FLUIDS					
88	Skill	EMR	EMT	AEMT	Paramedic	CCS
89	Arterial Line – Monitoring & Access Only					2,OM
90	Central Line – Placement				X****	
91	Central Line – Monitor & Maintain Only				X	
92	Intraosseous – Pediatric			X	X	
93	Intraosseous – Adult			2,OM	X	
94	Peripheral – Initiation			X	X	
95	Umbilical - Initiation				X****	
96	IV Fluid infusion - Non-medicated			X	X	

97	EMSPC 2008.1					
98	TECHNIQUE OF MEDICATION ADMINISTRATION					
99	Skill	EMR	EMT	AEMT	Paramedic	CCS
100	Aerosolized (MDI)				X	
101	Auto-Injector	X	X	X	X	
102	Buccal		X	X	X	
103	Endotracheal Tube (ET)				X	
104	Intramuscular (IM)		2,OM	X	X	
105	Intranasal				X	
106	Intraosseous, pediatric			X	X	
107	Intraosseous, adult			2,OM	X	
108	IV infusion				X	
109	IV Programmable volume infusion device					2,OM
110	IV push				X	
111	IV Push-D50/concentrated dextrose solutions only			X	X	
112	Accessing implanted central IV port				X	
113	Nasogastric				X	
114	Nebulized (SVN)				X	
115	Oral	X	X	X	X	
116	Subcutaneous		2,OM	X	X	
117	Sub-lingual				X	
118	Topical				X	
119						
120	EMSPC 2008.1					
121	MISCELLANEOUS					
122	Skill	EMR	EMT	AEMT	Paramedic	CCS
123	Arterial Blood Sampling, Radial Site - Obtaining					
124	Assisted childbirth delivery - normal	X	X	X	X	
125	Assisted childbirth delivery- complicated		X	X	X	
126	Blood Chemistry Analysis					2,OM
127	Blood Glucose Monitoring - automated		2,4,OM	X	X	
128	Blood Pressure – Manual	X	X	X	X	
129	Blood Pressure – Automated		X	X	X	
130	Emergency Moves for Endangered Patients	X	X	X	X	
131	Extrication awareness/patient access	X	X	X	X	
132	Rapid extrication		X	X	X	
133	Eye Irrigation		X	X	X	
134	Eye Irrigation – Morgan Lens				X	
135	ICP Monitoring					2,OM
136	Mechanical patient restraints		X	X	X	
137	Assist with prescribed meds		X	X	X	
138	Over-the-Counter Medications (OTC)				X	
139	Urinary Catheterization				X****	
140	Venous Blood Sampling – Obtaining			X	X	

141	EMSPC 2008.1					
142	MEDICATION FORMULARY					
143	Formulary	EMR	EMT	AEMT	Paramedic	CCS
144	Acetylsalicylic acid (Aspirin)				X	
145	Activated Charcoal			X	X	
146	Antihistamines				X	
147	Blood products administration					2,OM
148	Dextrose 50%			X	X	
149	Dextrose, concentrated solutions			2X	X	
150	Epinephrine (Adrenalin)				X	
151	Epinephrine Auto Injector	2,4,OM	2,4,OM	2,4,OM	X	
152	Glucagon		2,4,OM	X	X	
153	Glucose (Oral)		X	X	X	
154	Inhaled beta agonist		X**	X**	X	
155	Maintenance of blood administration					2,OM
156	MARK-I (Atropine & 2-Pam Chloride) self & peer	X	X	X	X	
157	MARK-I (Atropine & 2-Pam Chloride)				X	
158	MARK-I (Chempack patient use - emergency stockpile release only)	2,4X	2,4X	2,4X	X	
159	Medical director approved medications				X	
160	Naloxone (Narcan)				X	
161	Nitroglycerin - sublingual		X**	X**	X	
162	Nitrous Oxide (Nitronox)				X	
163	Oxygen	X	X	X	X	
164	Plasma volume expander administration					2,OM
165	Thrombolytic therapy administration				X	

OM=Optional Module

X in a white square = Existing Idaho SOP, will be removed from future standard manual editions.

2008.1 Standards Manual Additions. Not present in existing Idaho SOP or is modification of existing Idaho SOP.

Levels of Medical Supervision	
Requires online medical direction before performing	1
Requires specific training	2
Requires additional standards as defined by the EMSPC	3
Requires EMSPC protocol	4

*for chest pain of suspected ischemic origin
 **may carry and administer only if already prescribed
 *** may assist with patients own medication only
 ****will be included in Critical Care Curriculum in future Standards Manual

Advanced EMT Statewide Intubation Standards

Topic	Requirements	Available Options
Patient Selection		
Adult / Peds over 12 only	Unconscious w/ineffective respiration	
	Cardiac arrest	
	Apnea or agonal respirations	
Equipment		
Laryngoscope blades	adult & ped blade sizes (2,3,4) at least 3 sizes of 2 different blade types	Macintosh Miller other blade types permissable
Continuous Pulse Oximetry	before, during & after intubation	
Rescue device	must have at least one available	LMA Combitube King LT bougie/flexguide
Tube placement	must have at least one available	ETCO2, qualitative esophageal detector device (EDD)
Selection of tube size	based on patient age or size of 5th finger	
Suction device	per minimum EMS Bureau equipment list	
Bag Valve Mask	per minimum EMS Bureau equipment list	
Oxygen	per minimum EMS Bureau equipment list	
Intubation Attempts		
Preoxygenation	100% by BVM prior to any attempts	
Provider limited to 3 attempts	duration: each attempt should be no more than 30 seconds. If unsuccessful should oxygenate before subsequent attempts.	
Patient limited to 5 attempts	multiple attempts should not delay transport	
NAEMSP definition of attempt: insertion of laryngoscope blade into mouth		
Confirmation of Tube Placement		
Confirmation of Tube Placement	Utilize multiple methods	Breath sounds Epigastric sounds ETCO2 EDD chest rise tube misting Patient response
PCR Documentation		
See 'EMSPC Intubation PCR Documentation List' for required data elements.		

Required Elements for Performance Assessment and Improvement

Monitoring		
100% chart review		
Intubation success rate	agency	
	provider	
1st attempt success rate	agency	
	provider	
Rescue airway device utilization		
Complications (agency vs provider)		
	R mainstem (unrecognized)	
	esophageal intubation (unrecognized)	
	airway/dental trauma	
	hypoxia during intubation	
	bradycardia during intubation	
	inappropriate tube size	
	inappropriate tube depth	
Training		
1. Minimum annual demonstration of intubation proficiency		
2. Minimum annual review of intubation to include cognitive and psychomotor components with an emphasis on team coordination.		
Remediation		
Remediation at the discretion of the local EMS medical director		

Paramedic Non-RSI Statewide Intubation Standards

Topic	Requirements	Available Options
Patient Selection		
Adult / Peds	Unconscious w/ineffective respiration	
	Cardiac arrest	
	Apnea or agonal respirations	
	Conscious with ineffective respirations (Nasal intubations only)	
Equipment		
Laryngoscope blades	adult & ped blade sizes	Macintosh
	2 different blade types	Miller
		other blade types permissible
Continuous Pulse Oximetry	before, during & after intubation	
Rescue device	must have at least one available	LMA
		Combitube
		King LT
		bougie/flexguide
Tube placement	must have at least one available	ETCO ₂ , qualitative
		esophageal detector device (EDD)
Selection of tube size	based on patient age or size of 5th finger	
Suction device	per minimum EMS Bureau equipment list	
Bag Valve Mask	per minimum EMS Bureau equipment list	
Oxygen	per minimum EMS Bureau equipment list	
Intubation Attempts		
Preoxygenation	100% oxygen prior to any attempts	Bag Valve Mask
		Non-Rebreather Mask
Provider limited to 3 attempts	duration: each attempt should be no more than 30 seconds. If unsuccessful should oxygenate before subsequent attempts.	
Patient limited to 5 attempts	multiple attempts should not delay transport	
NAEMSP definition of attempt: insertion of laryngoscope blade into mouth or insertion of tube through nares		
Confirmation of Tube Placement		
Confirmation of Tube Placement	Utilize multiple methods	Breath sounds
		Epigastric sounds
		ETCO ₂
		EDD
		chest rise
		tube misting
		Patient response
PCR Documentation		
See 'EMSPC Intubation PCR Documentation List' for required data elements.		

Required Elements for Performance Assessment and Improvement

Monitoring		
100% chart review		
Intubation success rate	agency	
	provider	
1st attempt success rate	agency	
	provider	
Rescue airway device utilization		
Complications (agency vs provider)		
	R mainstem (unrecognized)	
	esophageal intubation (unrecognized)	
	airway/dental trauma	
	hypoxia during intubation	
	bradycardia during intubation	
	inappropriate tube size	
	inappropriate tube depth	
Training		
1. Minimum annual demonstration of intubation proficiency		
2. Minimum annual review of intubation to include cognitive and psychomotor components with an emphasis on team coordination.		
Remediation		
Remediation at the discretion of the local EMS medical director		

EMSPC RSI Statewide Standards

Topic	Requirements	Available Options
Patient Selection		
Adult /Peds	Patient requires intubation; AND is not flaccid, or has intact protective airway reflexes. Not a difficult airway	
Equipment		
Laryngoscope blades	adult & ped blade sizes 2 different blade types	Macintosh Miller other blade types permissible
Medications	As per local EMS Medical Director	
Continuous Pulse Oximetry	before during and after intubation	
Rescue device	must have at least one available	LMA Combitube King LT other
Tube placement	must have at least one available	ETCO2, qualitative esophageal detector device (EDD)
Selection of tube size	based on patient age or size of 5th finger	
Suction device	per minimum EMS Bureau equipment list	
Bag Valve Mask	per minimum EMS Bureau equipment list	
Oxygen	per minimum EMS Bureau equipment list	
Intubation Attempts		
Preoxygenation	100% oxygen prior to any attempts	Bag Valve Mask Non-Rebreather Mask
Provider limited to 3 attempts	duration: each attempt should be no more than 30 seconds. If unsuccessful should oxygenate before subsequent attempts.	
Patient limited to 5 attempts	multiple attempts should not delay transport	
NAEMSP definition of attempt: insertion of laryngoscope blade into mouth		
Confirmation of Tube Placement		
Confirmation of Tube Placement	Utilize multiple methods	Breath sounds Epigastric sounds ETCO2 EDD chest rise tube misting Patient response
PCR Documentation		
See 'EMSPC Intubation PCR Documentation List' for required data elements.		

Required Elements for Performance Assessment and Improvement

Monitoring		
100% chart review		
Intubation success rate	agency	
	provider	
1st attempt success rate	agency	
	provider	
Rescue airway device utilization		
Complications (agency vs provider)		
	R mainstem (unrecognized)	
	esophageal intubation (unrecognized)	
	airway/dental trauma	
	hypoxia during intubation	
	bradycardia during intubation	
	inappropriate tube size	
	inappropriate tube depth	
Training		
1. Minimum annual demonstration of intubation proficiency		
2. Minimum annual review of intubation to include cognitive and psychomotor components with an emphasis on team coordination.		
Remediation		
Remediation at the discretion of the local EMS medical director		

REQUIRED PCR DOCUMENTATION FOR ADVANCED AIRWAY MANAGEMENT: DATA ELEMENTS AND DEFINITIONS

The following data elements should be tracked for all patients who undergo attempts at invasive airway management. For each data element, definitions, variables (possible values), and rationale are provided. Invasive airway management refers primarily to endotracheal intubation (ETI), but also includes situations in which active airway or ventilatory support is attempted (for example, Combitube, laryngeal mask airway, or bag–valve–mask ventilation).

Although the data elements are structured in a manner amenable to entry on a computer database, this document does not specify a particular database structure or format. Individual services, programmers, and vendors may choose to incorporate the elements in a different sequence or context. Many of the recommended data elements have potential overlap with other portions of a typical prehospital patient chart. Data elements marked with an asterisk (*) indicate parameters that are unique and specific to airway management and probably are not reported in other portions of the patient chart. A sample data reporting template is provided.

These data elements are based on Wang et al. Out-of-Hospital Airway Management with the inclusion of Idaho specific data elements.¹

DATA ELEMENTS

1. Indications for invasive airway management*

- a. *Definition:* This data element documents the clinical indication for performing invasive airway management.
- b. *Variables (possible values)*
 1. Apnea or agonal respirations
 2. Airway reflexes compromised (ventilatory effort adequate, e.g., unconscious without a gag reflex)
 3. Ventilatory effort compromised (airway reflexes adequate, e.g., pulmonary edema)
 4. Injury or medical condition directly involving the airway
 5. Adequate airway reflexes and ventilatory effort, but potential for future airway or ventilatory compromise as a result of course of illness, injury (head or other), or medical treatment
 6. Other

For Advanced EMT, use these variables:

1. Unconscious with ineffective respiration
2. Cardiac arrest
3. Apnea or agonal respirations

- c. *Rationale:* ETI can result in morbidity if injudiciously applied. There are currently no validated indications for the decision to intubate. The recommended values reflect generally accepted criteria for performing ETI. The possible values “airway reflexes compromised (ventilatory effort adequate)” and “ventilatory effort compromised (airway reflexes adequate)” represent commonly encountered clinical scenarios that merit distinct classification.
2. Endotracheal intubation attempted
 - a. *Definition:* This data element documents if ETI was attempted.
 - b. *Variables (possible values)*
 1. Yes
 2. No
 - c. *Rationale:* Although the primary goal of these standards is to evaluate ETI, there may be instances in which ETI is not (or cannot be) attempted and when invasive airway management is performed using another method. Future developments in technology and clinical protocols may increase the use of non- ETI methods as the primary means of airway management.
 3. Endotracheal intubation not attempted; alternate method of airway support*

- a. *Definition:* This data element documents the primary airway management method utilized if ETI was not attempted. This does not pertain to secondary (rescue, contingency, or salvage) airway management in the event of failed ETI attempts.
- b. *Variables (possible values)*
 1. Bag–valve–mask (BVM) ventilation (with or without oral or nasal airway)
 2. Combitube or King LT
 3. Needle jet ventilation
 4. Open cricothyrotomy
 5. Other cricothyrotomy
 6. Continuous positive airway pressure (CPAP) or bilevel positive airway pressure (Bi- PAP)
 7. Laryngeal mask airway (LMA)
 8. Other
 9. Not applicable; ETI attempted
- c. *Rationale:* The possible values reflect alternative airway and ventilatory management approaches that may be implemented as an alternative to ETI. CPAP, BiPAP, and LMAs are currently not part of standard paramedic scope of practice in the United States, but their application in the prehospital setting have been explored and/or demonstrated in pilot studies.

4. Heart rate before intubation
 - a. *Definition:* This data element documents heart rate obtained within 5 minutes before initial ETI attempts determined by pulse check or electrocardiographic (ECG) monitoring.
 - b. *Variables (possible values)*
 1. Heart rate (beats/min)
 2. Not obtained
 - c. *Rationale:* Attempted ETI can be physiologically stressful to the patient. Assessment of baseline and postprocedure physiologic parameters provide one method for evaluating the effects of the procedure and concurrent therapy (such as facilitating drugs) on the patient. Given the time-dependent nature of resuscitation, vital signs probably cannot be obtained sooner than five minutes before ETI attempts. However, there may be instances when obtaining vital signs may need to be deferred; rescuers should recognize the obvious priority for executing airway interventions and not delay airway management interventions solely to obtain formal vital signs.
5. Systolic blood pressure before intubation
 - a. *Definition:* This data element documents systolic blood pressure obtained within 5 minutes before initial ETI attempts, determined by auscultation, palpation, or automated blood pressure cuff.
 - b. *Variables (possible values)*
 1. Systolic blood pressure (mm Hg)
 2. Not obtained
 - c. *Rationale:* See rationale for data element “heart rate before intubation.”
6. Diastolic blood pressure before intubation
 - a. *Definition:* This data element documents diastolic blood pressure obtained within 5 minutes before initial ETI attempts. Determined by auscultation or automated blood pressure cuff.
 - b. *Variables (possible values)*
 1. Diastolic blood pressure (mm Hg)
 2. Not obtained
 - c. *Rationale:* See rationale for data element “heart rate before intubation.” Diastolic blood pressure will not be available if blood pressure is measure by palpation.
7. Spontaneous respiratory rate before intubation
 - a. *Definition:* This data element documents spontaneous (unsupported) respiratory rate obtained within 5 minutes before initial ETI attempts, determined by observation without ventilatory assistance.
 - b. *Variables (possible values)*
 1. Spontaneous respiratory rate (breaths/min)
 2. Not obtained
 - c. *Rationale:* See rationale for data element “heart rate before intubation.”
8. Oxygen saturation before intubation
 - a. *Definition:* This data element documents oxygen saturation obtained within 5 minutes before initial ETI attempts as determined by pulseoximetry.
 - b. *Variables (possible values)*
 1. Oxygen saturation (SaO₂%)
 2. Not measurable (device applied but measurement not obtainable)
 3. Not obtained (device not applied)
 - c. *Rationale:* This data element is recommended because of the emergence of oxygen saturation as an accepted vital sign for both emergency medicine and EMS practice, particularly in instances of potential airway compromise. Many in-hospital and out-of-hospital providers routinely monitor oxygen saturation during ETI efforts. Oxygen saturation is also often used to guide the intubation procedure. For example, decreasing oxygen saturation may indicate the need to discontinue ETI attempts and to provide more basic ventilation procedures to improve oxygenation before subsequent attempts. Oxygen saturation may also be used as an important factor in the decision to provide a definitive airway.
9. Eye Glasgow Coma Scale (GCS) before intubation
 - a. *Definition:* This data element documents the eye portion of the GCS obtained within 5 minutes before initial ETI attempts
 - b. *Variables (possible values)*
 1. 1—no eye opening
 2. 2—eye opening to pain
 3. 3—eye opening to verbal command
 4. 4—eyes open spontaneously
 5. Not obtained
 - c. *Rationale:* Glasgow Coma Scale is used by some systems as an indication for definitive airway management in selected patient subsets. There are currently no other accepted or validated scales for quantifying level of consciousness. The rationale for separating the components of the GCS is that certain GCS elements may have stronger predictive value for selected aspects of airway management.

10. Verbal Glasgow Coma Scale before intubation

- a. *Definition:* This data element documents the verbal portion of the GCS obtained within 5 minutes before initial ETI attempts.
- b. *Variables (possible values)*
 1. 1—no verbal response
 2. 2—incomprehensible sounds
 3. 3—inappropriate words
 4. 4—confused
 5. 5—oriented
 6. Not obtained
- c. *Rationale:* See rationale for data element “eye Glasgow Coma Scale before intubation.”

11. Motor Glasgow Coma Scale before intubation

- a. *Definition:* This data element documents the motor portion of the GCS obtained within 5 minutes before initial ETI attempts.
- b. *Variables (possible values)*
 1. 1—no motor response
 2. 2—extension to pain
 3. 3—flexion to pain
 4. 4—withdraws from pain
 5. 5—localizing pain
 6. 6—obeys Commands
 7. Not obtained
- c. *Rationale:* See rationale for data element “eye Glasgow Coma Scale before intubation.”

12. Endotracheal intubation method*

- a. *Definition:* This data element documents the method used to accomplish ETI for each “attempt.” This data element is repeated for each ETI “attempt.” “Attempt” is defined as:
 1. Insertion of laryngoscope blade into mouth (for orotracheal methods)
 2. Insertion of tube through nares of nose (for nasotracheal methods)
 3. Insertion of rescue airway device into mouth (for Combitube, LMA, and other oral rescue airway devices)
 4. Insertion of rescue airway device through neck (for cricothyroidotomy, needle jet ventilation, retrograde ETI, and other “surgical” methods of airway management)
- b. *Variables (possible values)*
 1. Orotracheal intubation, no medications given (conventional orotracheal intubation): ETI via the oral route using a laryngoscope without the use of facilitating sedative or paralytic agents.
 2. Nasotracheal intubation, no medications given (conventional nasotracheal intubation): ETI via

the nasal route without the use of facilitating sedative or paralytic agents; includes both blind and visualized techniques

3. Sedation-facilitated intubation: The use of intravenous or intramuscular sedative and/or analgesic agents to facilitate ETI; includes benzodiazepines (midazolam, valium, etc.), narcotics (fentanyl, morphine, etc.), and induction agents (etomidate, pentathol, etc.); does not include the use of neuromuscular blocking agents
4. Rapid-sequence intubation (RSI): The use of a neuromuscular blocking agent (with or without the use of adjunct drugs) to facilitate ETI
5. Other intubation, includes all other nonsurgical methods of orotracheal and nasotracheal intubation (digital, lighted stylet, etc.)

- c. *Rationale:* There are many different techniques for accomplishing ETI. The majority of ETI performed in the prehospital setting occur in patients in cardiac arrest; patients in cardiac arrest are generally flaccid and can usually be intubated using conventional orotracheal methods. In patients with a perfusing rhythm (nonarrest), however, inadequate jaw relaxation can complicate ETI efforts. Although some of these patients can be intubated by conventional orotracheal methods, alternative intubating methods may be used, such as nasotracheal intubation, sedation-facilitated intubation, and rapid-sequence intubation.

The success rates for different ETI methods are distinctly different because of different patient conditions and the effects of different drugs. Because of this variability, it is important to stratify ETI success rates according to the method of ETI that is used.

The definition of ETI attempt varies widely according to medical specialty and clinical convention. Many EMS services define “attempt” as insertion of the endotracheal tube. However, anesthesiologists and emergency physicians typically define “attempt” as insertion of the laryngoscope blade.

The intention in tracking the number of “attempts” is to provide an estimate of the magnitude of effort needed to intubate a patient. The “insertion of blade” definition for attempt is preferred because each attempt to enter the oropharynx and visualize the vocal cords potentially results in deprivation of ventilation and oxygenation. A definition of “attempt” that is limited to tube insertion biases the clinical picture. For example, a patient that underwent four laryngoscopies but no attempts at tube insertion would be inappropriately described as having had “zero” attempts at ETI.

The use of the “insertion of blade” definition also facilitates comparison between prehospital providers and emergency physicians and anesthesiologists, an important analysis that has not been possible to make as a result of the inconsistent definition of “attempt.” Therefore, the definition of “attempt” as “insertion of laryngoscope blade” is recommended.

For nasotracheal intubation, “attempt” should be defined as insertion of the endotracheal tube through the nares of the nose.

The ETI method should be reported for each “attempt”; this approach is recommended because different methods may be used during the course of a patient encounter. For example, a patient may fail sedation-facilitated intubation on the first two attempts, prompting the use of rapid-sequence intubation for the third attempt.

The selection of specific pharmacologic agents is likely to be documented in other sections of the typical patient care report. Therefore, facilitating drugs and their respective dosages are not recommended as standard components of this data set.

13. Level of provider attempting endotracheal intubation*

- a. *Definition:* This data element documents the level of training of the individual attempting ETI for each ETI attempt. This data element is repeated for each ETI attempt.
- b. *Variables (possible values)*
 1. Emergency medical technician– paramedic
 2. Advanced EMT
 3. Paramedic student
 4. Prehospital nurse
 5. Physician assistant / Nurse Practitioner
 6. Physician (resident level)
 7. Physician (attending or fellow level)
 8. Other
- c. *Rationale:* Many different levels of providers perform ETI in the out-of-hospital setting. This data element facilitates identification of the level of rescuer that attempted ETI. EMT-B is included in the possible values because ETI is currently listed on the national EMT-B curriculum as an optional module and is currently being performed by EMT-Bs in some systems.

14. Intubation success for each attempt*

- a. *Definition:* This data element documents success of ETI for each ETI “attempt,” defined as intratracheal tube placement as determined by the rescuer using clinical examination and conventional endotracheal tube placement verification methods. This data element is repeated for each ETI attempt.

- b. *Variables (possible values)*
 1. Yes (successful)
 2. No (unsuccessful)
- c. *Rationale:* The success for each ETI attempt is recommended as a measured intermediate outcome because the uncontrolled nature of the field environment can result in tube dislodgement and reintubation may be necessary. In addition, the number of laryngoscopies needed to facilitate ETI is considered by many clinicians to provide an important measure of ETI performance; the success of each attempt provides additional insight for this measure. If the rescuer inserted the laryngoscope blade but did not attempt to pass the tube, this situation should be recorded as an unsuccessful attempt.

15. Endotracheal tube placement verification by auscultation*

- a. *Definition:* This data element documents the findings when auscultation of lung fields and epigastrium are performed to verify the location of endotracheal tube after the final ETI attempt.
- b. *Variables (possible values)*
 1. Breath sounds present in both lung fields and absent from epigastrium; suggests tube correctly placed (tracheal placement)
 2. Breath sounds absent from both lung fields and/or present over epigastrium; suggests tube incorrectly placed (esophageal placement)
 3. Indeterminate; lung fields and epigastrium auscultated but tube position could not be determined
 4. Not applicable; tube placed but breath sounds not assessed
 5. Not applicable; unable to place tube
- c. *Rationale:* Identification and confirmation of correct endotracheal tube placement is difficult in the uncontrolled field environment. Existing standards call for the use of multiple techniques or devices to confirm correct tube placement. The current recommendation is to report only the outcome of the final ETI attempt in order to reduce data collection requirements. Data elements 15-20 reflect the techniques most commonly used in clinical pre-hospital practice.

The purpose of data elements 15-20 is to reinforce the need for redundant ET tube confirmation, to emphasize the use of adjunct technology to verify ET tube placement, and to document how these different techniques are generally applied. Although there are other potential methods for confirming ET tube placement, those approaches are generally used on only rare instances or are not supported by scientific evidence or widespread clinical practice.

For example, direct visualization and revisualization of the endotracheal tube have been recommended in response to the Katz and Falk report of misplaced prehospital ET tubes. However, these methods of tube confirmation have not been standardized, formally validated, or widely implemented in clinical protocols.

16. Endotracheal tube placement verification by bulb or syringe aspiration device*

- a. *Definition:* This data element documents the findings when a bulb or syringe aspiration device is used after final ETI attempt to verify the location of endotracheal tube.
- b. *Variables (possible values)*
 - 1. Bulb inflated immediately or easy syringe aspiration; suggests tube is correctly placed (tracheal placement)
 - 2. Delayed bulb inflation or difficult syringe aspiration; suggests tube is incorrectly placed (esophageal placement)
 - 3. Indeterminate; used bulb or syringe aspiration device but tube position could not be determined
 - 4. Not applicable; tube placed but bulb or syringe aspiration device not used
 - 5. Not applicable; unable to place tube
- c. *Rationale:* See rationale for “endotracheal tube placement verification by auscultation.”

17. Endotracheal tube placement verification by colorimetric endtidal carbon dioxide detector device*

- a. *Definition:* This data element documents the findings when a colorimetric end-tidal carbon dioxide detection device is used after final ETI attempt to verify the location of endotracheal tube.
- b. *Variables (possible values)*
 - 1. Color change present; suggests tube correctly placed (tracheal placement)
 - 2. No color change present; suggests tube incorrectly placed (esophageal placement)
 - 3. Indeterminate; used colorimetric end-tidal carbon dioxide detector device but tube position could not be determined
 - 4. Not applicable; tube placed but colorimetric end-tidal carbon dioxide detector device not used
 - 5. Not applicable; unable to place tube
- c. *Rationale:* See rationale for “Endotracheal tube placement verification by auscultation.”

18. Endotracheal tube placement verification by digital end-tidal carbon dioxide detector device*

- a. *Definition:* This data element documents the findings when a digital end-tidal carbon dioxide detector device is used after final ETI attempt to verify the location of endotracheal tube
- b. *Variables (possible values)*
 - 1. Elevated end-tidal values present; suggests tube correctly placed (tracheal placement)
 - 2. Elevated end-tidal values not present; suggests tube incorrectly placed (esophageal placement)
 - 3. Indeterminate; used digital end-tidal carbon dioxide detector device but tube position could not be determined
 - 4. Not applicable; tube placed but digital end-tidal carbon dioxide detector device not used
 - 5. Not applicable; unable to place tube
- c. *Rationale:* See rationale for “endotracheal tube placement verification by auscultation.”

19. Endotracheal tube placement verification by waveform end-tidal carbon dioxide detector device*

- a. *Definition:* This data element documents the findings when a waveform end-tidal carbon dioxide detector device is used after final ETI attempt to verify the location of endotracheal tube.
- b. *Variables (possible values)*
 - 1. End-tidal waveform present; suggests tube correctly placed (tracheal placement)
 - 2. End-tidal waveform not present; suggests tube incorrectly placed (esophageal placement)
 - 3. Indeterminate; used waveform end-tidal carbon dioxide detector device but tube position could not be determined
 - 4. Not applicable; tube placed but waveform end-tidal carbon dioxide detector device not used
 - 5. Not applicable; unable to place tube
- c. *Rationale:* See rationale for “endotracheal tube placement verification by auscultation.”

20. Peak end-tidal carbon dioxide value*

- a. *Definition:* This data element documents the peak end-tidal carbon dioxide value indicated by digital or waveform end-tidal carbon dioxide detector device; reflects peak value within first minute after tube placement; does not apply to colorimetric devices.
- b. *Variables (possible values)*
 - 1. End-tidal carbon dioxide (ETCO₂, mm Hg)
 - 2. Indeterminate (used endtidal carbon dioxide detector device but could not determine peak value)

- c. *Rationale:* There are no current data to indicate the minimum end-tidal carbon dioxide levels that should be used to define intratracheal placement. This data element permits more precise identification of the endpoints of end-tidal capnometry when used for ET tube confirmation.

21. Intubation success for overall patient encounter*

- a. *Definition:* This data element documents if the endotracheal tube was properly placed on transfer to receiving facility or healthcare team; Determined by the receiving provider when possible.
- b. *Variables (possible values)*
 - 1. Yes (successful)
 - 2. No (unsuccessful)
- c. *Rationale:* This data element documents ETI success for the overall patient encounter and is defined as ET tube location on transfer to receiving facility or health care team. Although the result of the last ETI attempt may be used to identify overall ETI success, there are data suggesting that patients often arrive at the receiving medical facility with an incorrectly placed endotracheal tube. From the perspective of the patient’s overall course, ET tube misplacement or dislodgement should be considered unsuccessful airway management because it necessitates initiation of ETI efforts by the receiving facility or team.

From a medical quality point of view, the overall outcome of the patient at the end of the prehospital course is more pertinent than provisional outcomes measured at intermediate points in the course of patient care. Furthermore, successful out-of-hospital airway management involves not just proper tube placement, but also maintenance of proper tube placement. More so than in the in-hospital setting, endotracheal tubes in the field setting are prone to dislodgement, and the frequent reconfirmation of tube placement is a mandatory task in the prehospital management of patients.

There are currently no data regarding methods that should be used by the receiving provider to verify ET tube placement.

22. Person determining intubation success for overall patient encounter* Choose one or more

- a. *Definition:* This data element documents the individual(s) determining overall ETI success for the patient encounter.
- b. *Variables (possible values)*
 - 1. Rescuer who performed intubation; failed intubation
 - 2. Rescuer who performed intubation; no transfer of patient care

- 3. Rescuer who performed intubation; patient pronounced dead in field
- 4. Rescuer who performed intubation; receiving team or facility did not verify correct placement
- 5. Rescuer who assisted intubation
- 6. Receiving hospital team
- 7. Receiving ground EMS team
- 8. Receiving air medical team
- 9. Other
- 10. Unknown

- c. *Rationale:* This data element is an important component in better defining overall ETI outcome and identifying how that outcome was determined. Many clinicians believe that identification of the final ET tube location should be performed by a person other than the rescuer performing ETI. Although it is expected that the receiving hospital team will make the final determination of tube location in most cases, multiple possible values are listed because the provider receiving an intubated patient may not necessarily be in a receiving medical facility (for example, when care of a patient is transferred from a ground EMS unit to an air medical team).

23. Heart rate after intubation

- a. *Definition:* This data element documents heart rate obtained within 5 minutes after final ETI attempt (successful or unsuccessful).
- b. *Variables (possible values)*
 - 1. Heart rate (beats/min)
 - 2. Not obtained
- c. *Rationale:* See rationale for data element “heart rate before intubation.” Postintubation vital signs are important because they facilitate measurement of the physiological effect of ETI and medications administered to facilitate ETI.

24. Systolic blood pressure after intubation

- a. *Definition:* This data element documents systolic blood pressure obtained within 5 minutes after final ETI attempt (successful or unsuccessful); determined by auscultation, palpation, or automated blood pressure device.
- b. *Variables (possible values)*
 - 1. Systolic blood pressure (mm Hg)
 - 2. Not obtained
- c. *Rationale:* See rationale for data element “systolic blood pressure before intubation.”

25. Diastolic blood pressure after intubation

- a. *Definition:* This data element documents diastolic blood pressure obtained within 5 minutes after final ETI attempt (successful or unsuccessful); determined by auscultation or automated blood pressure device.
- b. *Variables (possible values)*
 - 1. Diastolic blood pressure (mm Hg)
 - 2. Not obtained.
- c. *Rationale:* See rationale for data element “diastolic blood pressure before intubation.”

26. Spontaneous respiratory rate after intubation

- a. *Definition:* This data element documents spontaneous respiratory rate obtained within 5 minutes after final ETI attempts; determined by observation without ventilatory assistance.
- b. *Variables (possible values)*
 - 1. Spontaneous respiratory rate (breaths/min)
 - 2. Not applicable; patient successfully intubated
 - 3. Not applicable; Secondary airway inserted
 - 4. Not obtained
- c. *Rationale:* See rationale for data element “spontaneous respiratory rate before intubation.” This data element is most meaningful in cases of unsuccessful ETI. This data element provides a measure of the effect of ETI efforts and facilitating medications on spontaneous respiratory drive. This data element is less useful when ventilation is provided by ETI or rescue airway device.

27. Oxygen saturation after intubation

- a. *Definition:* This data element documents oxygen saturation obtained within 5 minutes after final ETI attempt (successful or unsuccessful), as determined by pulseoximetry.
- b. *Variables (possible values)*
 - 1. Oxygen saturation (SaO₂%)
 - 2. Not measurable (device applied but measurement not obtainable)
 - 3. Not obtained (device not applied)
- c. *Rationale:* See rationale for data element “oxygen saturation before intubation.”

28. Critical complications encountered during airway management*

- a. *Definition:* This data element documents airway management complications that have strong potential to result in adverse patient outcomes. Multiple choices possible.

b. *Variables (possible values)*

- 1. Failure to successfully perform ETI
- 2. Injury or trauma to patient from airway management
- 3. Adverse event from drugs administered to facilitate airway management (for example, hypotension or cardiac arrest)
- 4. Esophageal intubation, delayed detection (detected after securing of tube)
- 5. Esophageal intubation, unrecognized (detected by receiving health care facility or team)
- 6. Tube dislodgement during transport or care
- 7. Other
- 8. No critical complications resulting from airway management

- c. *Rationale:* Ensuring patient safety is an important element of quality medical care. Managing the airway of critical patients generally should not result in adverse effects. Tracking and reporting critical complications are important elements of ensuring quality airway management.

Of the many potential complications and difficulties associated with airway management, the recommended values primarily reflect complications that (1) can adversely affect the patient, and (2) are direct results of care delivered by the prehospital team. There are currently data not validating or quantifying the magnitude of effect of any of these complications, and no data suggesting that these are the only complications with potential to cause adverse outcome.

29. Suspected reasons for failed intubation*

- a. *Definition:* If all attempts at ETI are unsuccessful, this data element documents the reasons for ETI failure (multiple choices possible).

b. *Variables (possible values)*

- 1. Inadequate patient relaxation
- 2. Inability to expose vocal cords during laryngoscopy
- 3. Patient anatomy
- 4. Orofacial trauma
- 5. Blood, vomitus, or secretions obscuring view of vocal cords
- 6. Inability to access patient to perform intubation
- 7. ETI attempts initiated, but arrived at destination facility before successful intubation
- 8. Equipment failure
- 9. Other
- 10. Not applicable (successful intubation)

- c. *Rationale:* There are only limited data describing the factors associated with ETI failure. Identification of the factors underlying failed ETI is an important component of monitoring airway management quality. These factors may reflect the clinical condition and the anatomy of the patient,

the skill of the rescuer, or logistic barriers. Only a limited set of options has been provided; individual services may track additional elements.

30. Secondary airway management method*

- a. *Definition:* This data element documents the secondary (“contingency,” “rescue,” or “salvage”) method used for airway management (multiple choices possible).
- b. *Variables (possible values)*
 - 1. Bag–valve–mask ventilation with or without oral or nasal airway
 - 2. Combitube
 - 3. Laryngeal mask airway
 - 4. Needle jet ventilation
 - 5. Open cricothyrotomy
 - 6. Other cricothyrotomy (for example, Mellker cricothyroidotomy kit)
 - 7. Other (retrograde intubation, etc.)
 - 8. Not applicable (successful intubation)
- c. *Rationale:* Loss of airway control can result in morbidity or mortality. All services should have contingency or rescue airway measures available in the event of inability to perform ETI. There are only limited data regarding the frequency of rescue airway use. The recommended data elements only reflect commonly used rescue airway methods; other methods of rescue airway management are available.

31. Secondary airway management resulted in satisfactory ventilation*

- a. *Definition:* This data element documents if secondary (contingency, rescue, or salvage) airway management method resulted in satisfactory ventilation.
- b. *Variables (possible values)*
 - 1. Yes
 - 2. No
 - 3. Not applicable (successful intubation)
- c. *Rationale:* Only limited data exists regarding the actual effectiveness of rescue airway devices in clinical application. This data element helps to evaluate whether the rescue airway was effectively applied. There are currently no data or standards for “satisfactory ventilation” using rescue airways; the assumption is that providers will attempt to ventilate to the same standards used for intubated patients.

32. Time of successful intubation*

- a. *Definition:* This data element documents the time of the first successful ETI attempt.
- b. *Variables (possible values)*
 - 1. Time of successful intubation (24-hour format)
 - 2. Unknown
 - 3. Not applicable; unsuccessful intubation
- c. *Rationale:* See rationale for data element, “time of decision to intubate.”

33. Endotracheal tube size used

- a. *Definition:* This data element documents the size of the endotracheal tube that was successfully inserted.
- b. *Variables (possible values)*
 - 1. Endotracheal tube size (mm)
 - 2. Unknown
 - 3. Not applicable; unsuccessful intubation
- c. *Rationale:* Selection of the appropriate endotracheal tube size is consistent with quality medical care. Inappropriate size may result in airway trauma, aspiration, inability to ventilate with adequate positive pressure and difficulty weaning from mechanical ventilation. Appropriate tube size can be estimated by age or anatomical considerations (eg. diameter of nares or 5th/little finger).

34. Endotracheal tube depth

- a. *Definition:* This data element documents the insertion depth of a successfully-placed endotracheal tube, as measured at the lateral corner of the mouth.
- b. *Variables (possible values)*
 - 1. Tube depth (cm, at lateral corner of mouth)
 - 2. Not known
 - 3. Not applicable; unsuccessful intubation
- c. *Rationale:* Documentation of endotracheal tube depth may prevent inadvertent mainstem intubation. Appropriate tube depth can be estimated by the patient’s age. Serial checks of tube depth may facilitate earlier identification of inadvertent tube migration or dislodgement.

35. Endotracheal tube secured with tape or device

- a. *Definition:* This data element documents how a successfully-placed endotracheal tube is secured.

- b. *Variables (possible values)*
 1. Adhesive tape
 2. Umbilical/cloth tape
 3. Proprietary (commercial) endotracheal tube holder
 4. Other
 5. Not known
 6. Not applicable; unsuccessful intubation

c. *Rationale:* Unrecognized endotracheal tube migration and dislodgement can result in significant morbidity and mortality. Securing the endotracheal tube properly can help prevent migration and dislodgement.

36. Endotracheal tube placement reassessed after patient movement

a. *Definition:* This data element documents the reassessment of endotracheal tube position after movement of the patient.

- b. *Variables (possible values)*
 1. Yes
 2. No
 3. Not known
 4. Not applicable; unsuccessful intubation

c. *Rationale:* Unrecognized endotracheal tube migration and dislodgement can result in significant morbidity and mortality. Movement of the patient (eg, ground to gurney or gurney to ambulance) is known to be associated with loss of medical device integrity. Reassessment of endotracheal tube position after movement of the patient should facilitate earlier recognition of tube migration and dislodgement.

37. Endotracheal tube placement reassessed after patient transfer of care

a. *Definition:* This data element documents the reassessment of endotracheal tube position when the responsibility for patient care is transferred to another EMS agency or the receiving facility.

- b. *Variables (possible values)*
 1. Yes
 2. No
 3. Not known
 4. Not applicable; unsuccessful intubation

c. *Rationale:* Unrecognized endotracheal tube migration and dislodgement can result in significant morbidity and mortality and creates significant liability for the provider who is responsible for maintenance of the airway. Reassessment of endotracheal tube position after the transfer or care should facilitate earlier recognition of tube

migration and dislodgement and will assist in determining when an endotracheal tube has moved.

38. Lowest O2 saturation during intubation

a. *Definition:* This data element documents the lowest oxygen saturation obtained during successful and unsuccessful intubation attempts.

- b. *Variables (possible values)*
 1. Oxygen saturation (SaO₂%)
 2. Not measurable (device applied but measurement not obtainable)
 3. Not obtained (device not applied)

c. *Rationale:* Data suggests an association between hypoxia during prehospital intubation and adverse patient outcome.

39. Lowest heart rate during intubation

a. *Definition:* This data element documents the lowest heart rate obtained during successful and unsuccessful intubation attempts.

- b. *Variables (possible values)*
 1. Heart rate (beats/min)
 2. Not obtained

c. *Rationale:* Data suggests an association between severe hypoxia & bradycardia during prehospital intubation and adverse patient outcome.

REFERENCES:

1. Wang HE, Domeier RM, Kupas DF, Greenwood MJ, O'Connor RE. Recommended Guidelines for Uniform Reporting of Data from Out-of-Hospital Airway Management: Position Statement of the National Association of EMS Physicians. Prehospital Emergency Care. January/March 2004; Vol. 18/ Number 1; 58-72.

IDAHO EMS AIRWAY MANAGEMENT REPORTING SHEET

Patient demographic information:

Date: ____/____/____ Dispatch Time: ____:____ am / pm

EMS Service Name/No.: _____

Pt age (yr): _____ Patient sex: M F

Submit to:

Idaho EMS Physician Commission
c/o Idaho EMS Bureau
590 W. Washington Street
PO Box 83720
Boise ID 83720

**1a. Indication for invasive airway management - Paramedic only:
(check all that apply)**

- Apnea or agonal respirations
- Airway reflex compromised
- Ventilatory effort compromised
- Injury/illness involving airway
- Adequate airway reflexes/vent effort, but potential for compromise
- Other _____

**1b. Indication for invasive airway management - Advanced EMT:
(check all that apply)**

- Unconscious with ineffective respiration
- Cardiac arrest
- Apnea or agonal respirations
- Other _____

2. Was endotracheal intubation (ETI) attempted? Yes No

3. If ETI not attempted – alternate method of airway support:

- Bag-Valve-Mask (BVM)
- Needle Jet Ventilation
- Open Cricothyrotomy
- CPAP/BiPAP
- Other: _____
- Combitube or King LT
- LMA
- Other Cricothyrotomy
- Not Applicable (ETI Attempted)

4-8. Vital signs prior to ETI attempt (leave blank if not obtained):

Pulse: ____ beats/min Blood Pressure: ____ / ____ mmHg
Resp Rate: ____ breaths/min SaO₂: ____ %

9-11. Glasgow Coma Score (GCS) before intubation:

- Eye:** none (1) pain (2) verbal (3) spontaneous (4)
- Verbal:** none (1) incomprehensible (2) inappropriate words (3) disoriented (4) oriented (5)
- Motor:** no response (1) extends to pain (2) flexes to pain (3) withdraws from pain (4) localizes pain (5) obeys commands (6)

13. Level of training of each rescuer attempting intubation:

Rescuer	Level of Training (check one)							
A [†]	<input type="checkbox"/> Paramedic	<input type="checkbox"/> Adv EMT	<input type="checkbox"/> Medic Student	<input type="checkbox"/> Nurse	<input type="checkbox"/> PA/NP	<input type="checkbox"/> MD/DO (attend)	<input type="checkbox"/> MD/DO (res)	<input type="checkbox"/> Other: _____
B [†]	<input type="checkbox"/> Paramedic	<input type="checkbox"/> Adv EMT	<input type="checkbox"/> Medic Student	<input type="checkbox"/> Nurse	<input type="checkbox"/> PA/NP	<input type="checkbox"/> MD/DO (attend)	<input type="checkbox"/> MD/DO (res)	<input type="checkbox"/> Other: _____
C [†]	<input type="checkbox"/> Paramedic	<input type="checkbox"/> Adv EMT	<input type="checkbox"/> Medic Student	<input type="checkbox"/> Nurse	<input type="checkbox"/> PA/NP	<input type="checkbox"/> MD/DO (attend)	<input type="checkbox"/> MD/DO (res)	<input type="checkbox"/> Other: _____

12-14. Provide information for each laryngoscopy attempt.

FOR ORAL ROUTE, EACH INSERTION OF BLADE (LARYNGOSCOPY) IS ONE "ATTEMPT."

FOR NASAL ROUTE, EACH PASS OF TUBE PAST NARES IS ONE "ATTEMPT."

Indicate drugs given to facilitate intubation:

Attempt	12. ETI Method	13. Who attempted?†	14. Was attempt successful?
#1	<input type="checkbox"/> OTI <input type="checkbox"/> NTI <input type="checkbox"/> Sedation <input type="checkbox"/> RSI	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C	<input type="checkbox"/> Yes <input type="checkbox"/> No
#2	<input type="checkbox"/> OTI <input type="checkbox"/> NTI <input type="checkbox"/> Sedation <input type="checkbox"/> RSI	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C	<input type="checkbox"/> Yes <input type="checkbox"/> No
#3	<input type="checkbox"/> OTI <input type="checkbox"/> NTI <input type="checkbox"/> Sedation <input type="checkbox"/> RSI	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C	<input type="checkbox"/> Yes <input type="checkbox"/> No
#4	<input type="checkbox"/> OTI <input type="checkbox"/> NTI <input type="checkbox"/> Sedation <input type="checkbox"/> RSI	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C	<input type="checkbox"/> Yes <input type="checkbox"/> No

- Midazolam ____ mg
- Lidocaine ____ mg
- Etomidate ____ mg
- Atropine ____ mg
- Other – Specify: _____ - ____ mg
- Other – Specify: _____ - ____ mg
- Diazepam ____ mg
- Morphine ____ mg
- Succinylcholine ____ mg
- Topical Spray

15-19. Endotracheal tube confirmation.

- | | | | | | |
|------------------------------------|---|---|--|---------------------------------------|--|
| 15. Auscultation | <input type="checkbox"/> Tracheal Placement | <input type="checkbox"/> Esophageal Placement | <input type="checkbox"/> Indeterminate | <input type="checkbox"/> Not Assessed | <input type="checkbox"/> Tube not placed |
| 16. Bulb/Syringe Aspiration | <input type="checkbox"/> Tracheal Placement | <input type="checkbox"/> Esophageal Placement | <input type="checkbox"/> Indeterminate | <input type="checkbox"/> Not Assessed | <input type="checkbox"/> Tube not placed |
| 17. Colorimetric ETCO ₂ | <input type="checkbox"/> Tracheal Placement | <input type="checkbox"/> Esophageal Placement | <input type="checkbox"/> Indeterminate | <input type="checkbox"/> Not Assessed | <input type="checkbox"/> Tube not placed |
| 18. Digital ETCO ₂ | <input type="checkbox"/> Tracheal Placement | <input type="checkbox"/> Esophageal Placement | <input type="checkbox"/> Indeterminate | <input type="checkbox"/> Not Assessed | <input type="checkbox"/> Tube not placed |
| 19. Waveform ETCO ₂ | <input type="checkbox"/> Tracheal Placement | <input type="checkbox"/> Esophageal Placement | <input type="checkbox"/> Indeterminate | <input type="checkbox"/> Not Assessed | <input type="checkbox"/> Tube not placed |
| Other: _____ | <input type="checkbox"/> Tracheal Placement | <input type="checkbox"/> Esophageal Placement | <input type="checkbox"/> Indeterminate | <input type="checkbox"/> Not Assessed | <input type="checkbox"/> Tube not placed |

20. Peak ETCO₂ value: _____ Indeterminate

21. Was ETI successful for the overall encounter (on transfer of care to ED or helicopter)? Yes No

22. Who determined the final placement (location) of ET tube?

Rescuer performing intubation.
 Another rescuer on the same team.
 Receiving helicopter crew.
 Receiving hospital team.
 Other: _____

23-27. Vital signs after intubation attempt:

Pulse: ____ beats/min Blood Pressure: ____ / ____ mmHg
Resp Rate: ____ breaths/min SaO₂: ____ %

28. Critical complications encountered during airway management (Check *all* that apply):

Failed intubation effort.
 Injury or trauma to patient from airway management effort.
 Adverse event from facilitating drugs.
 Esophageal intubation – delayed detection (after tube secured).
 Esophageal intubation – detected in ED.
 Tube dislodged during transport/patient care.
 Other: _____

29. If all intubation attempts FAILED, indicate suspected reasons for failed intubation (check all that apply):

Inadequate patient relaxation Orofacial trauma.
 Inability to expose vocal cords. Secretions/blood/vomit.
 Difficult pt anatomy. Unable to access pt.
 ETI attempted, but arrived at destination facility before accomplished.
 Not applicable – Successful field ETI Other: _____

30. If all intubation attempts FAILED, indicate secondary (rescue) airway technique used (check all that apply):

Bag-Valve-Mask (BVM) Ventilation Needle/Jet Ventilation
 Combitube Open Cricothyrotomy
 Not applicable – Successful field ETI Other: _____

31. Did secondary (rescue) airway result in satisfactory ventilation?

Yes No Not applicable

32. Time of successful intubation _____:_____ am / pm

33-37. Endotracheal tube placement:

33. Size (mm) _____ Unknown
34. Depth (cm, at lateral corner of mouth) Unknown
35. Secured with: Adhesive tape Umbilical/cloth tape Tube holder Other Unknown
36. Placement reassessed after patient movement Yes No Unknown
37. Placement reassessed after patient transfer of care Yes No Unknown

38. Lowest O₂ saturation during intubation:

SaO₂: ____ % Not measurable Not obtained

39. Lowest heart rate during intubation:

Pulse: ____ beats/min Not obtained