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Time Sensitive Emergency System Standards Manual

State of Idaho

Authority: Sections 56-1024 through 56-1030, Idaho Code



IDAHO DEPARTMENT OF
HEALTH & WELFARE

Time Sensitive Emergency Council
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I. DEFINITIONS

The following terms are used in this manual as defined below:

Heart Attack. STEMI, which is a common name for ST-elevation myocardial infarction, a more precise definition for a type of heart attack that is caused by a prolonged period of blocked blood supply that affects a large area of the heart and has a substantial risk of death and disability calling for a quick response.

Regional Time Sensitive Emergency (TSE) Committee. A regional TSE committee established under Section 56-1027, Idaho Code.

Stroke. An interruption of blood flow to the brain causing paralysis, slurred speech and/or altered brain function usually caused by a blockage in a blood vessel that carries blood to the brain (ischemic stroke) or by a blood vessel bursting (hemorrhagic).

Trauma. The result of an act or event that damages, harms, or hurts a human being resulting in intentional or unintentional damage to the body resulting from acute exposure to mechanical, thermal, electrical or chemical energy, or from absence of such essentials as heat or oxygen.

TSE Designated Center. A facility that has voluntarily applied for TSE designation, met and is in compliance with the designation criteria and standards of these rules, and that the TSE Council has designated as one (1) or more of the following:

- a. Trauma
 - (1) Level I Trauma Center;
 - (2) Level II Trauma Center;
 - (3) Level III Trauma Center;
 - (4) Level IV Trauma Center;
 - (5) Level V Trauma Center;
 - (6) Pediatric Level I Trauma Center; or
 - (7) Pediatric Level II Trauma Center.
- b. Stroke
 - (1) Level I Stroke Center (Comprehensive);
 - (2) Level II Stroke Center (Primary); or
 - (3) Level III Stroke Center (Acute Stroke Ready).
- c. STEMI (Heart Attack)
 - (1) Level I STEMI Center (Receiving); or
 - (2) Level II STEMI Center (Referring).

Facility. A health care organization that is voluntarily seeking designation from the Idaho Time Sensitive Emergency Council.

Center. A facility designated by the Idaho Time Sensitive Emergency Council is known as a center.



Freestanding Emergency Department. Is owned by a hospital with a dedicated emergency department; is located within thirty-five (35) miles of the hospital that owns or controls it; provides emergency services twenty-four (24) hours per day, seven (7) days per week on an outpatient basis; is physically separate from a hospital; and meets the staffing and service requirements in IDAPA 16.03.14, "Rules and Minimum Standards for Hospitals in Idaho."

Hospital. As defined in Section 39-1301, Idaho Code, is a facility which is primarily engaged in providing, by or under the daily supervision of physicians, concentrated medical and nursing care on a twenty-four (24) hour basis to inpatients experiencing acute illness; and diagnostic and therapeutic services for medical diagnosis and treatment, psychiatric diagnosis and treatment, and care of injured, disabled, or sick persons; and rehabilitation services for injured, disabled, or sick persons; and obstetrical care. Provides for care of two (2) or more individuals for twenty-four (24) or more consecutive hours. Is staffed to provide professional nursing care on a twenty-four (24) hour basis.

Rural Clinic. A health care clinic in a rural area that is located more than thirty-five (35) miles from a hospital via maintained roads and is capable of providing emergency care to patients.

II. TSE STANDARDS MANUAL AUTHORITY

The Idaho Time Sensitive Emergency System Council is authorized under Section 56-1028, Idaho Code, to promulgate rules for the purpose of establishing standards and for the administration of a voluntary time sensitive emergency system of care.

III. REFERENCED DOCUMENTS

- American College of Surgeons, Resources for the Optimal Care of the Injured Patient, 2006 or 2015
- Society of Cardiovascular Patient Care, Chest Pain Cycle 4 Accreditation
- Society of Cardiovascular Patient Care, Chest Pain v5 Accreditation, 2015
- DNV Healthcare, Inc. Primary Stroke Center Certification Standards
- DNV Healthcare, Inc. Comprehensive Stroke Center Certification Standards
- Joint Commission, Advanced Disease Specific Care Manual, Current Edition

IV. TSE REGIONS

TSE Regions

There are six TSE regions.

- **Region 1 – North.** The counties of Benewah, Bonner, Boundary, Kootenai, Latah, and Shoshone.
- **Region 2 – North Central.** The counties of Clearwater, Idaho, Latah, Lewis, and Nez Perce.
- **Region 3 – Southwest.** The counties of Ada, Adams, Boise, Canyon, Elmore, Gem, Owyhee, Payette, Valley, and Washington.
- **Region 4 – South Central.** The counties of Blaine, Camas, Cassia, Gooding, Jerome, Lincoln, Minidoka, and Twin Falls.

- **Region 5 – Southeast.** The counties of Bannock, Bear Lake, Bingham, Caribou, Cassia, Franklin, Minidoka, Oneida, and Power.
- **Region 6 – East.** The counties of Bonneville, Butte, Clark, Custer, Fremont, Jefferson, Lemhi, Madison, and Teton.

The specific procedures to request realignment of regions can be found in IDAPA 16.02.081, “Rules of the Idaho Time Sensitive Emergency System Council.” Refer to Section 56-1030, Idaho Code, for detailed description of the Regional TSE Committee functions.

V. APPLICATION PROCESS

General Information

A facility applying for initial designation as a TSE designated facility must apply for each designation by:

- Submitting a completed application for each designation being sought to the TSE Program via the Bureau of EMS and Preparedness;
- Submitting a non-refundable TSE site survey fee as applicable to the TSE Program; and
- Scheduling a site survey as applicable.

The Idaho TSE Council, upon review of appropriate documentation, may provide reciprocity for facilities in Idaho that also choose to operate under a designation in a neighboring state’s system.

Fees

The designation fees are for a three (3) year designation and are payable on an annual basis.

	Designation Fee 3-years/Annual (Not to exceed)	TSE On-Site Survey Fee (Not to exceed)
Trauma Designations		
Level I	\$45,000/\$15,000	\$3,000 (Not applicable if using ACS verification)
Level II	\$36,000/\$12,000	\$3,000 (Not applicable if using ACS verification)
Level III	\$24,000/\$8,000	\$3,000 (Not applicable if using ACS verification)
Level IV	\$12,000/\$4,000	\$1,500 (Not applicable if using ACS verification)
Level V	\$3,000/\$1,000	\$1,500
Pediatric Level I and Level II	\$36,000/\$12,000	Not applicable because of ACS verification
Stroke Designations		
Level I	\$21,000/\$7,000	\$3,000 (Not applicable with national or acceptable State verification)
Level II	\$12,000/\$4,000	\$3,000 (Not applicable with national or acceptable State verification)
Level III	\$1,500/\$500	\$1,500 (Not applicable with national or acceptable State verification)
STEMI Designations		
Level I	\$21,000/\$7,000	\$3,000 (Not applicable with national or acceptable State verification)
Level II	\$1,500/\$500	\$1,500 (Not applicable with national or acceptable State verification)

Site Survey

An Idaho TSE site survey may include:

- A review of the facility's application;
- A chart review based on the facility's application;
- A review of the facility's QI process;
- An inspection of equipment pertaining to the designation being sought;
- A review of policies and procedures pertaining to the designation being sought;
- A physical inspection of the facility;
- Interviews with facility staff and review of staff credentials;
- A review of the facility's protocols and call schedules;
- A review of transfer protocols; and
- A review of the facility's planned interaction with prehospital transport.

Survey Team

A TSE Council approved site survey team may include:

Physician reviewer who:

- Is certified by the American Board of Medical Specialties or the American Board of Osteopathic Medicine;
- Is board-certified in the specialty area he/she is representing on the review team;
- Is currently active in trauma, stroke or emergency cardiac care at a center that is at or above the level being reviewed;
- Is from out-of-state (for Level I Trauma Centers, Level II Trauma Centers, Level I STEMI Centers, and Level I Stroke Centers);
- Is from outside of the region of the center being verified; and
- Has no conflict of interest with the center under review.

Nurse reviewer and/or Program Manager who:

- Is currently active in trauma, stroke or emergency cardiac care at a center that is at or above the level being reviewed;
- Is from out-of-state (for Level I Trauma Centers, Level II Trauma Centers, Level I STEMI Centers, and Level I Stroke Centers);
- Is from outside of the region of the center being verified; and
- Has no conflict of interest with the center under review.

The procedures to notify the Idaho TSE Council of a potential conflict of interest with a specific reviewer can be found in IDAPA 16.02.251, "Rules of the Idaho Time Sensitive Emergency System Council."



Provisional Designation, Waiver, Denial, Modification, Revocation and Suspension

Procedures for applying for a waiver or for submitting an appeal can be found in IDAPA 16.02.270 through 16.02.285, “Rules of the Idaho Time Sensitive Emergency System.”

VI. TRAUMA DESIGNATION

Level I, II, III & Level IV Trauma Center

Hospitals seeking Level I, II, III or Level IV Trauma Center designation have the choice to use the American College of Surgeons (ACS) or the State of Idaho to verify their compliance.

To apply for Level I, II, III or Level IV Trauma Center using the ACS to verify compliance, the following is required:

- Part A and B of the application; and
- A copy of the pre-review questionnaire (PRQ) from the ACS; and
- A copy of the ACS site survey report.

To apply for Level I, II, III or Level IV Trauma Center using the Idaho TSE Council to verify compliance, the following is required:

- A completed application; and
- A non-refundable site survey fee; and
- A scheduled site survey.

A hospital applying for initial designation using the Idaho TSE Council to verify compliance must have a TSE Council approved survey team evaluation prior to initial designation. The hospital must meet or exceed the designation criteria in Appendix A.

After completion of the site survey, the center must then pay either the annual designation fee or the entire three (3) year designation fee. The center will be designated for three (3) years, unless the designation is rescinded by the TSE Council for non-compliance to the TSE Council’s rules. The TSE Council will send a certificate of designation and confirmation of the designation period. Annual designation fees for those facilities paying yearly are due to the Department within thirty days of the date of the invoice in order to maintain designation.

Any TSE designated center that has a loss of certification or licensure will immediately notify the TSE Council by contacting TSE Program staff.

A TSE designated Level I, II, III or Level IV Trauma Center requesting renewal of their designation must:

- Submit a renewal application six (6) months prior to the expiration date of the previous designation; and
- Submit a TSE site survey fee, if applicable; and
- Submit a copy of the full ACS report detailing the results of the ACS site visit; or

- Schedule a site visit from a TSE Council approved survey team.

Designation will not lapse due to a delay in scheduling the site visit if the delay is through no fault of the facility.

Level V Trauma Center

A hospital, freestanding emergency department, or rural clinic seeking Level V Trauma designation must undergo the Idaho TSE Council verification to demonstrate compliance with the standards incorporated by the TSE Council.

To apply for Level V Trauma Center the facility must:

- Submit a completed application; and
- Submit a non-refundable site survey fee; and
- Schedule a site survey.

A facility applying for initial designation must have a TSE Council approved survey team evaluation prior to initial designation as an Idaho TSE Level V Trauma Center. The facility must meet or exceed the designation criteria in Appendix A.

After completion of the site survey, the center must then pay either the annual designation fee or the entire three (3) year designation fee. The center will be designated for three (3) years, unless the designation is rescinded by the TSE Council for non-compliance with the TSE Council's rules. The TSE Council will send a certificate of designation and confirmation of the designation period. Annual designation fees for those facilities paying yearly are due to the Department within thirty (30) days of the date of the invoice in order to maintain designation.

Any TSE designated center that has a loss of certification or licensure will immediately notify the TSE Council by contacting TSE Program staff.

A TSE designated Level V Trauma Center requesting renewal of their designation must:

- Submit a renewal application six (6) months prior to the expiration date of the previous designation; and
- Submit a TSE site survey fee; and
- Schedule a site visit from a TSE Council approved survey team.

Designation will not lapse due to a delay in scheduling the site visit if the delay is through no fault of the facility.

Pediatric Trauma Center

Hospitals seeking Pediatric Level I or II Trauma Center designation must undergo the American College of Surgeons' (ACS) verification to demonstrate compliance with the corresponding standards published in the ACS document *Resources for Optimal Care of the Injured Patient, 2006 or 2015* as applicable.

To apply for Pediatric Level I or II Trauma Center designation, the following is required:

- A completed application; and
- A copy of the pre-review questionnaire (PRQ) from the ACS; and
- A copy of the ACS site survey report.

Once verified by the ACS and approved by the TSE Council, the center will be designated for three (3) years unless the designation is rescinded by the TSE Council for non-compliance with the TSE Council's rules.

Any TSE designated center that has a loss of certification or licensure will immediately notify the TSE Council by contacting TSE Program staff.

A TSE designated Pediatric Level I or II Trauma Center requesting renewal of their designation must:

- Submit a renewal application; and
- Be verified by the ACS three (3) months prior to the expiration date of previous designation; and
- Submit a copy of the full ACS report detailing the results of the ACS site visit.

Designation will not lapse due to a delay in scheduling the site visit if the delay is through no fault of the facility.

VII. STROKE DESIGNATION

Level I & II Stroke Center (Comprehensive & Primary)

Hospitals seeking Level I or II Stroke Center designation have the choice to use DNV, Joint Commission (JC), or the State of Idaho to verify their compliance.

To apply for Level I or II Stroke Center using the DNV or JC, the following is required:

- Part A and B of the application; and
- A copy of the full accreditation report detailing the results of the site visit results from the national accrediting body.

To apply for Level I or II Stroke Center using the Idaho TSE Council to verify compliance, the following is required:

- A completed application; and
- A non-refundable site survey fee; and
- A schedule site survey.

A hospital applying for initial designation using the Idaho TSE Council to verify compliance must have a TSE Council approved survey team evaluation prior to initial designation. The hospital must meet or exceed the designation criteria in Appendix A.

After completion of the site survey, the center must then pay either the annual designation fee or the entire three (3) year designation fee. The center will be designated for three (3) years, unless the designation is rescinded by the TSE Council for non-compliance with the TSE Council's rules. The TSE

Council will send a certificate of designation and confirmation of the designation period. Annual designation fees for those facilities paying yearly are due to the Department within thirty (30) days of the date of the invoice in order to maintain designation.

Any TSE designated center that has a loss of certification or licensure will immediately notify the TSE Council by contacting TSE Program staff.

A TSE designated Level I or II Stroke Center requesting renewal of their designation must:

- Submit a renewal application six (6) months prior to the expiration date of the previous designation; and
- Submit a TSE site survey fee, if applicable; and
- Submit a copy of the full accrediting body report detailing the results of the DNV or JC site visit; or
- Schedule a site visit from a TSE Council approved survey team.

Designation will not lapse due to a delay in scheduling the site visit if the delay is through no fault of the facility.

Level III Stroke Center (Acute Stroke Ready)

A hospital, freestanding emergency department, or rural clinic seeking Level III Stroke Center designation must undergo the Idaho TSE Council verification to demonstrate compliance with the standards incorporated by the TSE Council.

To apply for Level III Stroke Center, a facility must:

- Submit a completed application; and
- Submit a non-refundable site survey fee; and
- Schedule a site survey.

A facility applying for initial designation must have a TSE Council approved survey team evaluation prior to initial designation as an Idaho TSE Level III Stroke Center. The facility must meet or exceed the designation criteria in Appendix A.

After completion of the site survey, the center must then pay either the annual designation fee or the entire three (3) year designation fee. The center will be designated for three (3) years, unless the designation is rescinded by the TSE Council for non-compliance with the TSE Council's rules. The TSE Council will send a certificate of designation and confirmation of the designation period. Annual designation fees for those facilities paying yearly are due to the Department within thirty (30) days of the date of the invoice in order to maintain designation.

Any TSE designated center that has a loss of certification or licensure will immediately notify the TSE Council by contacting TSE Program staff.

A TSE designated Level III Stroke Center requesting renewal of their designation must:

- Submit a renewal application six (6) months prior to the expiration date of the previous designation; and

- Submit a TSE site survey fee; and
- Schedule a site visit from a TSE Council approved survey team.

Designation will not lapse due to a delay in scheduling the site visit if the delay is through no fault of the facility.

VIII. STEMI DESIGNATION

Level I STEMI Center (Receiving)

Hospitals seeking Level I STEMI Center designation has the choice to use the American College of Cardiology (ACC) or the State of Idaho to verify their compliance.

To apply for Level I STEMI Center using the ACC, the following is required:

- A completed application; and
- A copy of the full accreditation report detailing the results of the site visit results from the ACC.

To apply for Level I STEMI Center using the Idaho TSE Council to verify compliance, the following is required:

- A completed application; and
- A non-refundable site survey fee; and
- A schedule site survey.

A hospital applying for initial designation using the Idaho TSE Council to verify compliance must have a TSE Council approved survey team evaluation prior to initial designation. The hospital must meet or exceed the designation criteria in Appendix A.

After completion of the site survey, the center must then pay either the annual designation fee or the entire three (3) year designation fee. The center will be designated for three (3) years, unless the designation is rescinded by the TSE Council for non-compliance with the TSE Council's rules. The TSE Council will send a certificate of designation and confirmation of the designation period. Annual designation fees for those facilities paying yearly are due to the Department within thirty (30) days of the date of the invoice in order to maintain designation.

Any TSE designated center that has a loss of certification or licensure will immediately notify the TSE Council by contacting TSE Program staff.

A TSE designated Level I STEMI Center requesting renewal of their designation must:

- Submit a renewal application six (6) months prior to the expiration date of the previous designation; and
- Submit a TSE site survey fee, if applicable; and
- Submit a copy of the full accrediting body report detailing the results of the ACC site visit; or
- Schedule a site visit from a TSE Council approved survey team.

Designation will not lapse due to a delay in scheduling the site visit if the delay is through no fault of the facility.

Level II STEMI Center (Referring)

A hospital, freestanding emergency department, or rural clinic seeking Level II STEMI Center designation must undergo the Idaho TSE Council verification to demonstrate compliance with the standards incorporated by the TSE Council.

To apply for Level II STEMI Center, the facility must:

- Submit a completed application; and
- Submit a non-refundable site survey fee; and
- Schedule a site survey.

A facility applying for initial designation must have a TSE Council approved survey team evaluation prior to initial designation as an Idaho TSE Level II STEMI Center. The facility must meet or exceed the designation criteria in Appendix A.

After completion of the site survey, the center must then pay either the annual designation fee or the entire three (3) year designation fee. The center will be designated for three (3) years, unless the designation is rescinded by the TSE Council for non-compliance with the TSE Council's rules. The TSE Council will send a certificate of designation and confirmation of the designation period. Annual designation fees for those facilities paying yearly are due to the Department within thirty (30) days of the date of the invoice in order to maintain designation.

Any TSE designated center that has a loss of certification or licensure will immediately notify the TSE Council by contacting TSE Program staff.

A TSE designated Level II STEMI Center requesting renewal of their designation must:

- Submit a renewal application six (6) months prior to the expiration date of the previous designation; and
- Submit a TSE site survey fee; and
- Schedule a site visit from a TSE Council approved survey team.

Designation will not lapse due to a delay in scheduling the site visit if the delay is through no fault of the facility.

IX. APPENDIX A: DESIGNATION REQUIREMENTS

Level I Trauma Center

Designation Criteria for Level I Trauma Center

Criteria for designation of Level I Trauma Centers are based upon *Resources for Optimal Care of the Injured Patient, COT/American College of Surgeons, 2006*. The criteria defined in that document are designed to verify that the services and systems are in place to ensure optimal care of the trauma patient. The following elements must be met for designation as a Level I Trauma Center in Idaho.

1. Trauma System

Time Sensitive Emergencies (TSE)

1.1 The center's trauma program staff has sufficient involvement in national, state, and regional trauma system planning, development, and operation.

Center Mission

1.2 There is a current resolution supporting the trauma center from the medical staff.

1.3 There is a current resolution supporting the trauma center from the hospital board.

1.4 There is sufficient infrastructure, staff, equipment, and support to the trauma program to provide adequate provision of care.

1.5 The trauma program has adequate administrative support and defined lines of authority that ensure comprehensive evaluation of all aspects of trauma care.

2. Description of Trauma Center

Description of the Trauma Center

2.1 All trauma facilities are on the same campus.

2.2 The trauma program is empowered to address issues that involve multiple disciplines.

2.3 The center meets admission volume performance requirements.

2.4 The adult trauma center that treats more than 100 injured children annually has a pediatric ED area, a pediatric intensive care area, appropriate resuscitation equipment, and pediatric-specific trauma Performance Improvement and Patient Safety (PIPS) program.

2.5 The center provides some means of referral and access to trauma center resources.

2.6 The center provides a continuous rotation in trauma surgery for senior residents that is part of an Accreditation Council for Graduate Medical Education- accredited program in any of the following disciplines: general surgery, orthopedic surgery, or neurosurgery; and supports an acute care surgery fellowship consistent with the educational requirements of the American Association for the Surgery of Trauma.

2.7 In teaching facilities, the requirements of the Residency Review Committee are met.

2.8 Center provides initial resuscitation of the trauma patient and immediate intervention to control hemorrhage and to assure maximum stabilization prior to referral to an appropriate higher level of care.

Trauma Leadership
Trauma Medical Director
2.9 The trauma program has a Trauma Medical Director with the authority and administrative support to lead the program.
2.10 The Trauma Medical Director is a board-certified surgeon or an American College of Surgeons (ACS) Fellow.
2.11 The Trauma Medical Director is current in Advanced Trauma Life Support (ATLS).
2.12 The Trauma Medical Director has accrued an average of 12 hours annually or 36 hours in 3 years of external** trauma-related Continuing Medical Education (CME).
2.13 The Trauma Medical Director participates in trauma call.
2.14 The Trauma Medical Director is a member of and participates in regional or national trauma organizations.
2.15 The Trauma Medical Director has sufficient authority to set qualifications for the trauma servicemembers.
2.16 The roles of emergency physicians and trauma surgeons are defined, agreed on, and approved by the Trauma Medical Director.
2.17 The Trauma Medical Director has the authority to correct deficiencies in trauma care or to exclude from trauma call the trauma team members who do not meet specified criteria.
2.18 The Trauma Medical Director has the authority to recommend changes for the trauma panel based on performance review.
2.19 The Trauma Medical Director has the responsibility and authority for determining each general surgeon's ability to participate on the trauma panel through the Performance Improvement and Patient Safety (PIPS) program and hospital policy.
2.20 The Trauma Medical Director has the responsibility and authority to ensure compliance with verification requirements.
2.21 The Trauma Medical Director is involved in the development of the center's bypass protocol.
2.22 The Trauma Medical Director ensures and documents dissemination of information and findings from the TPOPPC to the noncore surgeons on the trauma team.
2.23 In circumstances when attendance is not mandated (noncore members) the Trauma Medical Director ensures dissemination of information from the PIPS program.
2.24 The Trauma Medical Director ensures and documents dissemination of information and findings from the Trauma Program Operational Process Performance Committee (TPOPPC) to the noncore surgeons on the trauma team.
2.25 The Trauma Medical Director is accountable for all trauma care and exercises administrative authority for the trauma program.
Trauma Program Manager
2.26 The Trauma Program Manager shows evidence of educational preparation (a minimum of 16 hours of trauma-related education per year) and clinical experience of injured patients.

3. Clinical Functions

3.1 The criteria for graded activation is clearly defined by the center and continuously evaluated by the PIPS program.

3.2 The criteria for the highest level of activation is clearly defined and evaluated by the PIPS program.

3.3 The trauma service retains responsibility for its patients and coordinates all therapeutic decisions.

3.4 The trauma surgeon is kept informed of and concurs with major therapeutic and management decisions made by the Intensive Care Unit (ICU) team.

3.5 There is a method to identify injured patients, monitor the provision of health care services, make periodic rounds, and hold formal and informal discussions with individual practitioners.

3.6 The center must be the local trauma authority and assume the responsibility for providing training for prehospital and hospital-based providers.

3.7 The center has established protocols to ensure immediate and appropriate care of the adult and pediatric trauma patient.

Trauma Team

3.8 Criteria for all levels of Trauma Team Activation (TTA) must be defined and reviewed annually.

3.9 All trauma/general surgeons, emergency providers, and midlevel providers on the Trauma Team have completed ATLS at least once.

3.10 Trauma Team members participate in PIPS and TPOPPC.

3.11 Trauma Team physicians and midlevel providers are credentialed by the medical staff and governing board.

Emergency Department (ED)

3.12 The ED has a designated Emergency Physician Director supported by an appropriate number of additional physicians to ensure immediate care for injured patients.

3.13 ED physicians are present in the ED at all times.

3.14 Each emergency physician is board-certified or meets the Alternate Pathway*.

3.15 Physicians who are not board-certified in emergency medicine who work in the ED are current in ATLS.

3.16 Emergency physicians on the call panel are regularly involved in the care of injured patients.

3.17 Emergency physicians who take trauma call have the documented 12 hours annually or 36 hours in three years of trauma-related CME and participate in an internal educational process conducted by the trauma program based on the principles of practice-based learning and the PIPS program. Staying current with their board certification satisfies the CME requirement.

3.18 An emergency physician participates in the trauma PIPS program and the Trauma Program Operational Process Performance Committee (TPOPPC).

- 3.19 A representative from the ED participated in the prehospital PIPS program.
- 3.20 The PIPS liaison has accrued an average of 12 hours annually or 36 hours in 3 years of external** trauma-related CME.
- 3.21 The emergency medicine representative or designee to the TPOPPC attends a minimum of 50% of these meetings.
- 3.22 A designated emergency physician is available to the Trauma Medical Director for PIPS issues that occur in the ED.
- 3.23 In institutions in which there are emergency medicine residency programs, supervision is provided by an in-house attending emergency physician 24 hours per day.

General Surgery

- 3.24 All trauma surgeons must have privileges in general surgery.
- 3.25 The trauma surgeons respond promptly to activations, remain knowledgeable in trauma care principles whether treating locally or transferring to a center with more resources, and participate in PIPS activities.
- 3.26 Trauma surgeons in adult trauma centers that treat more than 100 injured children annually are credentialed for pediatric trauma care by the center's credentialing body.
- 3.27 The center has general surgical coverage 24/7.
- 3.28 The trauma surgeon on call is dedicated to the trauma center while on duty.
- 3.29 A published backup call schedule for trauma surgery is available.
- 3.30 Seriously injured patients are admitted to or evaluated by an identifiable surgical service staffed by credentialed trauma providers.
- 3.31 The trauma surgeon is on site in the ED within 15 minutes of notification 24/7 with an achievement rate of 80% as monitored by the PIPS program.
- 3.32 The trauma surgeon on call is involved in the decisions regarding diversion.
- 3.33 The trauma surgeon core group is adequately defined by the Trauma Medical Director.
- 3.34 The core group takes at least 60% of the total trauma call hours each month.
- 3.35 The core trauma surgeon attendance at PIPS meetings is greater than 50%.
- 3.36 Surgeons who take trauma call have the documented 12 hours annually or 36 hours in 3 years of trauma-related CME and an internal education process conducted by the trauma program based on the principles of practice-based learning and the PIPS program. Staying current with their board certification satisfies the CME requirement.
- 3.37 A general surgeon or appropriate substitute is available for major resuscitations in house 24/7.
- 3.38 All general surgeons are board-certified, meet the Alternate Pathway*, or are ACS Fellows.
- 3.39 Adequate (at least 50%) attendance by trauma surgery core group at TPOPPC is documented.

Orthopedic Surgery

- 3.40 The center has orthopedic surgery available.

3.41 The orthopedic surgeon has privileges in general orthopedic surgery.
3.42 Orthopedic surgeons who care for injured patients are board-certified or meet the Alternate Pathway*.
3.43 Orthopedic team members have dedicated call at their institution and a backup call system.
3.44 An orthopedic team member is promptly available in the trauma resuscitation area when consulted by the surgical trauma team leader for multiple injured patients.
3.45 The orthopedic trauma team member has documentation of the acquisition of 12 hours of CME per year on average and has participated in an internal educational process conducted by the trauma program and the orthopedic liaison based on the principles of practice-based learning and the PIPS program. Staying current with their board certification satisfies the CME requirement.
3.46 An orthopedic surgeon is designated to and participates in the PIPS program and TPOPPC. The orthopedic surgeon attends a minimum of 50% of these meetings.
3.47 The design of the backup call system, the responsibility of the orthopedic trauma team liaison, has been approved by the Trauma Medical Director.
3.48 The PIPS liaison has accrued an average of 12 hours annually or 36 hours in 3 years of external** trauma-related CME.
Neurosurgery
3.49 The neurosurgeons that care for trauma patients are board-certified or meet the Alternate Pathway*.
3.50 Neurotrauma care is promptly and continuously available for severe traumatic brain injury and spinal cord injury and for less severe head and spine injuries when necessary.
3.51 Qualified neurosurgeons are regularly involved in the care of head- and spinal-cord injured patients and are credentialed by the hospital with general neurosurgical privileges.
3.52 An attending neurosurgeon is present in the ED within 30 minutes of consultation by the surgical trauma team leader for multiple injured patients 24/7 with an 80% achievement rate.
3.53 The center provides an on-call neurosurgical backup schedule with formally arranged contingency plans in case the capability of the neurosurgeon, hospital, or system to care for neurotrauma patients is overwhelmed.
3.54 Neurosurgeons who take trauma call have the documented 12 hours annually or 36 hours in 3 years of verifiable trauma-related CME and participate in an internal educational process conducted by the trauma program based on the principles of practice-based learning and the PIPS program. Staying current with their board certification satisfies the CME requirement.
3.55 There is a dedicated neurosurgeon representative (liaison) that attends a minimum of 50% of the PIPS meetings.
3.56 A neurosurgeon is designated to and participates in the PIPS program and TPOPPC. The neurosurgeon attends a minimum of 50% of these meetings.

3.57 The neurosurgeon liaison representative has the documented 12 hours annually or 36 hours in 3 years of verifiable, external** trauma-related CME.

Collaborative Clinical Services

Anesthesia

3.58 Anesthesia services are available in-house 24/7.

3.59 Anesthesia services are promptly available for emergency operations.

3.60 Anesthesia services are promptly available for airway problems.

3.61 All anesthesiologists taking call have successfully completed a residency program.

3.62 When anesthesiology chief residents or Certified Registered Nurse Anesthetists (CRNA) are used to fulfill availability requirement, the staff anesthesiologist on call is (1) advised, (2) promptly available at all times, and (3) present for all operations.

3.63 An anesthesiologist is designated to and participates in the PIPS program and the TPOPPC. The anesthesiologist attends a minimum of 50% of these meetings.

Operating Room (OR)

3.64 The OR is adequately staffed and immediately available.

3.65 Operating rooms are promptly available to allow for emergency operations on musculoskeletal injuries, such as open fracture debridement and stabilization and compartment decompression.

3.66 There is a mechanism for providing additional staff for a second operating room when the first operating room is occupied.

3.67 The operating room team does not have functions requiring its presence outside the OR.

3.68 The OR has the all of the following essential equipment:

a. Rapid infusers;

b. Thermal control equipment for patients and resuscitation fluids;

c. Intraoperative radiologic capabilities;

d. Equipment for fracture fixation;

e. Equipment for endoscopic evaluation (bronchoscopy and gastrointestinal endoscopy);

f. Equipment necessary for craniotomy;

g. Cardiopulmonary bypass available 24/7; and

h. An operating microscope available 24/7.

3.69 A mechanism to ensure OR availability without undue delay for patients with semi-urgent orthopedic injuries.

3.70 A mechanism for documenting trauma surgeon presence in the OR for all trauma operations is in place.

Post-Anesthesia Care Unit (PACU)

3.71 The PACU has the necessary equipment to monitor and resuscitate patients.

3.72 The PACU has qualified nurses available 24/7 as needed during the patient's post anesthesia recovery phase.

3.73 The PACU is covered by a call team from home with documentation by the PIPS program that nurses are available and delays are not occurring.

Radiology

3.74 Conventional radiography and CT are available 24/7.

3.75 MRI capability is available 24/7.

3.76 Conventional catheter angiography and sonography are available 24/7.

3.77 There is an in-house CT technologist.

3.78 Radiologists are promptly available, in person or by teleradiology, when requested, for the interpretation of radiographs, performance of complex imaging studies, or interventional procedures.

3.79 There is an in-house radiographer.

3.80 Critical information is verbally communicated to the trauma team.

3.81 Diagnostic information is communicated in a written form and in a timely manner.

3.82 Changes in interpretation are monitored by the PIPS program.

3.83 Final reports accurately reflect communications, including changes between preliminary and final interpretations.

3.84 The center has policies designed to ensure that trauma patients who may require resuscitation and monitoring are accompanied by appropriately trained providers during transportation to and while in the radiology department.

3.85 A radiologist is designated to and participates in the PIPS program and TPOPPC. The radiologist attends a minimum of 50% of these meetings.

Intensive Care Unit (ICU)

3.86 The ICU has the necessary equipment to monitor and resuscitate patients.

3.87 Intracranial pressure monitoring equipment is available.

3.88 A qualified nurse is available 24/7 to provide care during the ICU phase.

3.89 The patient/nurse ratio does not exceed 2:1 for critically ill patients in the ICU.

3.90 The center has in-house physician coverage for ICU at all times.

3.91 Physician coverage of critically ill trauma patients is available 24/7.

3.92 Physicians covering critically ill trauma patients respond rapidly to urgent problems as they arise.

3.93 The trauma surgeon remains in charge of patients in the ICU.

3.94 The trauma surgeon is kept informed of and concurs with major therapeutic and management decisions made by the ICU team.

3.95 The surgical director or co-director of the ICU has appropriate training and experience for the role.

3.96 The surgical director of the ICU has obtained critical care training during residency or fellowship and has expertise in perioperative and post-injury care of injured patients.

3.97 The surgical director of the ICU has added qualifications in surgical critical care from the American Board of Surgery or meets the Alternate Pathway* for critical care.

Other Surgical Specialists

3.98 The center has the following surgical specialists:

- a. Orthopedic surgery;
- b. Neurosurgery;
- c. Cardiac surgery;
- d. Thoracic surgery;
- e. Hand surgery;
- f. Microvascular surgery;
- g. Plastic surgery;
- h. Obstetric and gynecological surgery;
- i. Ophthalmology;
- j. Otolaryngology; and
- k. Urology.

Medical Consultants

3.99 The trauma center includes the following medical specialists: cardiology, infectious disease, pulmonary medicine, and nephrology and their respective support teams (for example, respiratory therapy, dialysis team, and nutrition support).

Respiratory Therapy

3.100 A respiratory therapist is available to care for trauma patients 24/7.

Laboratory

3.101 Laboratory services are available 24/7 for the standard analysis of blood, urine, and other body fluids, including microsampling when appropriate.

3.102 The capability for coagulation studies, blood gases, and microbiology are present.

3.103 The blood bank is capable of blood typing and cross-matching.

3.104 The blood bank has an adequate amount of red blood cells, fresh frozen plasma, platelets, cryoprecipitate, or appropriate coagulation factors to meet the needs of injured patients.

3.105 The center must have a transfusion protocol developed collaboratively between the trauma service and the blood bank.

Nutrition

3.106 Nutrition support services are available.

Social Services

3.107 The center has social services.

3.108 The center must screen all trauma patients for alcohol use and provide a brief intervention if appropriate.

Dialysis

3.109 Acute hemodialysis is available.

Rehabilitation

3.110 Rehabilitation consulting services, occupational therapy, speech therapy, physical therapy, and social services are available during the acute phase of care.

3.111 The center has either rehabilitation services within its facility or a transfer agreement to a freestanding rehabilitation hospital.

4. Prehospital Trauma Care

4.1 The trauma program participates in prehospital care protocol development and the PIPS program.

5. Interhospital Transfer

5.1 The decision to transfer an injured patient to a specialty care facility in an acute situation is based solely on the needs of the patient.

5.2 There are transfer agreements in place with specialty referral centers (e.g. burn, pediatric, and rehabilitation centers).

5.3 A mechanism for direct physician-to-physician contact is present for arranging patient transfer.

5.4 Centers that refer burn patients to a designated burn center must have in place written transfer protocols with a referral burn center.

5.5 The center must have guidelines addressing which patients (including pediatric patients) should be transferred and the safe transport of those patients.

6. Performance Improvement and Patient Safety (PIPS)

6.1 The center demonstrates a clearly defined PIPS program for the trauma population.

6.2 The PIPS program is supported by a reliable method of data collection that consistently gathers valid and objective information necessary to identify opportunities for improvement.

6.3 System and process issues (such as documentation and communication), clinical care issues (including identification and treatment of immediate life-threatening injuries), and transfer decisions must be reviewed by the PIPS program.

6.4 All trauma centers must use a risk stratified benchmarking system to measure performance and outcomes.

6.5 The trauma program must use clinical practice guidelines, protocols, and algorithms derived from evidence-based validation resources to achieve benchmark goals.

6.6 All process and outcome measures must be documented in a written PIPS plan and updated annually.

6.7 The trauma center demonstrates a clearly defined PIPS program for the trauma population. All process and outcome measures must be documented in a written PIPS plan and updated annually.

6.8 The process of analysis occurs at regular intervals to meet the needs of the program.
6.9 The process of analysis includes multidisciplinary review.
6.10 The process demonstrates problem resolution (loop closure).
6.11 The center is able to separately identify the trauma patient population for review.
6.12 The PIPS program must have audit filters to review and improve pediatric and adult patient care.
6.13 The center uses the registry to support its PIPS program.
6.14 Deaths are categorized as unanticipated mortality with opportunity for improvement, anticipated mortality with opportunity for improvement, or mortality without opportunity for improvement.
6.15 The PIPS program reviews the organ donation rate.
6.16 The PIPS program has defined conditions requiring the surgeon's immediate hospital presence.
6.17 The PIPS program ensures that the PACU has the necessary equipment to monitor and resuscitate patients.
6.18 All Trauma Team Activations must be categorized by the priority of response and quantified by number and percentage.
6.19 The center's PIPS program must work with receiving facilities to provide and obtain feedback on all transferred patients.
6.20 The PIPS program evaluates OR availability and delays when an on-call team is used.
6.21 The PIPS program documents the appropriate timeliness of the arrival of the MRI technologist.
6.22 The availability of the anesthesia services and the absence of delays in airway control or operations are documented in the PIPS program.
6.23 The 80% compliance of the surgeon's presence in the ED is confirmed and monitored by PIPS (15 minutes).
6.24 Programs that admit more than 10% of injured patients to nonsurgical services demonstrate the appropriateness of that practice through the PIPS program.
6.25 The adult trauma center that treats children reviews the care of injured children through the PIPS program.
6.26 In centers with ICUs, transfers to a higher level of care must be reviewed to determine the rationale for transfer, adverse outcomes, and opportunities for improvement.
6.27 The PIPS program must document that timely and appropriate care and coverage are being provided in the ICU.
6.28 The PIPS program reviews transfers to ensure appropriateness.
6.29 There is a PIPS review of all neurotrauma patients who are diverted or transferred.
6.30 The results of analysis are documented and define corrective strategies.
6.31 The center must have a system to notify dispatch and EMS agencies when on divert status.

7. Trauma Program Operational Process Performance Committee (TPOPPC)

7.1 There is a TPOPPC. This multidisciplinary committee addresses, assesses, and corrects global trauma program and system issues. This committee handles process, includes all program-related services, meets regularly, takes attendance, has minutes, and works to correct all overall program deficiencies to continue to optimize patient care.

7.2 The TPOPPC must meet regularly, with required attendance of medical staff active in trauma resuscitation, to review systemic and care provider issues, as well as propose improvements to the care of the injured.

7.3 There is TPOPPC participation from general surgery, orthopedic surgery, neurosurgery, emergency medicine, and anesthesia.

7.4 The TPOPPC is chaired by the Trauma Medical Director or designee.

7.5 Identified problem trends undergo multidisciplinary peer review by the TPOPPC.

7.6 There is documentation reflecting the review of operational issues and, when appropriate, the analysis and proposed corrective actions.

8. Time Sensitive Emergency (TSE) Registry

8.1 Trauma center's program specific data are collected, analyzed, and used to support the internal PIPS program.

8.2 Data is submitted to the Idaho TSE Registry (Idaho Trauma Registry). At least 80% of cases must be entered into the registry within 180 days of treatment.

8.3 There is a process in place to verify that TSE Registry data is accurate and valid.

8.4 The trauma program ensures that registry data confidentiality measures are in place.

9. Outreach & Education

9.1 The center is engaged in trauma and injury prevention related public and professional education.

9.2 The center provides a mechanism for trauma-related education for nurses involved in trauma care.

9.3 The center provides an ATLS course at least annually.

10. Prevention

10.1 The center participates in traumatic injury prevention.

10.2 The center has a prevention coordinator with a demonstrated job description and salary support.

10.3 The center bases injury prevention activities on local data.

10.4 The center demonstrates collaboration with or participation in national, regional, or state injury prevention programs.

11. Disaster Planning and Management

11.1 The center meets the disaster-related requirements of the Joint Commission.

11.2 A trauma surgeon is a member of the center's disaster committee.

11.3 Center drills that test the individual hospital's disaster plan are conducted at least every 6 months.

11.4 The center has a disaster plan described in its Disaster Manual.

12. Organ Procurement

12.1 The center has an established relationship with a recognized Organ Procurement Organization (OPO).

12.2 There are written policies for triggering notification of the OPO.

12.3 The center has written protocols for declaration of brain death.

13. Research

13.1 The center meets the minimum 20 peer-reviewed articles published in journals included in Index Medicus in 3 years or the criterion of 4 of 7 scholarly activities listed in chapter 19 (Resources for Optimal Care of the Injured Patient, COT/American College of Surgeons, 2006) and 10 peer-reviewed articles published in journals included in Index Medicus in 3 years.

13.2 The research resulted from work related to the trauma center.

13.3 The articles include authorship or co-authorship by a member of the general surgical team.

13.4 Of the 20 articles, there is at least one that includes authorship or co-authorship by members of the general surgery team and at least one each from 3 of 6 disciplines: neurosurgery, emergency medicine, orthopedics, radiology, anesthesia, and rehabilitation.

13.5 The center meets the alternative criteria for research:

a. 10 peer-reviewed articles published in journals included in Index Medicus resulting from work in the trauma center with at least one each from 3 of 6 disciplines (neurosurgery, emergency medicine, orthopedics, radiology, anesthesia, and rehabilitation); AND

b. 4 of 7 scholarly activities as stated in Chapter 19 (Resources for Optimal Care of the Injured Patient, COT/American College of Surgeons, 2006), Trauma Research and Scholarship.

13.6 The administration of the trauma center demonstrates support of the research program.

Level II Trauma Center

Designation Criteria for Level II Trauma Center

Idaho criteria for designation of Level II Trauma Centers are based upon Resources for Optimal Care of the Injured Patient, COT/American College of Surgeons, 2006. The criteria defined in that document are designed to verify that the services and systems are in place to ensure optimal care of the trauma patient. The following elements must be met for designation as a Level II Trauma Center in Idaho.

1. Trauma System

Time Sensitive Emergencies (TSE)

1.1 The center's trauma program staff has sufficient involvement in national, state, and regional trauma system planning, development, and operation.

Center Mission

1.2 There is a current resolution supporting the trauma center from the medical staff.

1.3 There is a current resolution supporting the trauma center from the hospital board.

1.4 There is sufficient infrastructure, staff, equipment, and support to the trauma program to provide adequate provision of care.

1.5 The trauma program has adequate administrative support and defined lines of authority that ensure comprehensive evaluation of all aspects of trauma care.

2. Description of Trauma Center

Description of the Trauma Center

2.1 All trauma facilities are on the same campus.

2.2 The trauma program is empowered to address issues that involve multiple disciplines.

2.3 The adult trauma center that treats more than 100 injured children annually has a pediatric ED area, a pediatric intensive care area, appropriate resuscitation equipment, and pediatric-specific trauma Performance Improvement and Patient Safety (PIPS) program.

2.4 The center provides some means of referral and access to trauma center resources.

2.5 Center provides initial resuscitation of the trauma patient and immediate intervention to control hemorrhage and to assure maximum stabilization prior to referral to an appropriate higher level of care.

Trauma Leadership

Trauma Medical Director

2.6 The trauma program has a Trauma Medical Director with the authority and administrative support to lead the program.

2.7 The Trauma Medical Director is a board-certified surgeon or an American College of Surgeons (ACS) Fellow.

2.8 The Trauma Medical Director is current in Advanced Trauma Life Support (ATLS).

2.9 The Trauma Medical Director has accrued an average of 12 hours annually or 36 hours in 3 years of external** trauma-related Continuing Medical Education (CME).
2.10 The Trauma Medical Director participates in trauma call.
2.11 The Trauma Medical Director is a member of and participates in regional or national trauma organizations.
2.12 The Trauma Medical Director has sufficient authority to set qualifications for the trauma servicemembers.
2.13 The roles of emergency physicians and trauma surgeons are defined, agreed on, and approved by the Trauma Medical Director.
2.14 The Trauma Medical Director has the authority to correct deficiencies in trauma care or to exclude from trauma call the trauma team members who do not meet specified criteria.
2.15 The Trauma Medical Director has the authority to recommend changes for the trauma team based on performance review.
2.16 The Trauma Medical Director has the responsibility and authority to determine each general surgeon's ability to participate on the trauma team through the trauma Process Improvement and Patient Safety (PIPS) program and hospital policy.
2.17 The Trauma Medical Director has the responsibility and authority to ensure compliance with verification requirements.
2.18 The Trauma Medical Director is involved in the development of the center's bypass protocol.
2.19 The Trauma Medical Director documents the dissemination of information to the PIPS committee.
2.20 In circumstances when attendance is not mandated (noncore members) the Trauma Medical Director ensures and documents dissemination of information from the PIPS program.
2.21 The Trauma Medical Director ensures and documents dissemination of information and findings from the Trauma Program Operational Process Performance Committee (TPOPPC) to the noncore surgeons on the trauma team.
2.22 The Trauma Medical Director is accountable for all trauma care and exercises administrative authority for the trauma program.
Trauma Program Manager
2.23 The Trauma Program Manager has clinical experience caring for injured patients and a minimum of 16 hours of trauma-related continuing education per year.
3. Clinical Functions
3.1 The criteria for graded activation is clearly defined by the center and continuously evaluated by the PIPS program.
3.2 The criteria for the highest level of activation is clearly defined and evaluated by the PIPS program.
3.3 The trauma service retains responsibility for its patients and coordinates all therapeutic decisions.

3.4 The trauma surgeon is kept informed of and concurs with major therapeutic and management decisions made by the Intensive Care Unit (ICU) team.
3.5 There is a method to identify injured patients, monitor the provision of health care services, make periodic rounds, and hold formal and informal discussions with individual practitioners.
3.6 The center must be the local trauma authority and assume the responsibility for providing training for prehospital and hospital-based providers.
3.7 The center has established protocols to ensure immediate and appropriate care of the adult and pediatric trauma patient.
Trauma Team
3.8 Criteria for all levels of Trauma Team Activation (TTA) must be defined and reviewed annually.
3.9 All trauma/general surgeons, emergency providers, and midlevel providers on the Trauma Team have completed ATLS at least once.
3.10 Trauma Team members participate in PIPS & TPOPPC.
3.11 Trauma Team physicians and midlevel providers are credentialed by the medical staff and governing board.
Emergency Department (ED)
3.12 The ED has a designated Emergency Physician Director supported by an appropriate number of additional physicians to ensure immediate care for injured patients.
3.13 Emergency physicians cover in-house emergencies with a PIPS program demonstrating the efficacy of this practice.
3.14 Coverage of emergencies in the ICU leaves the ED with appropriate physician coverage.
3.15 Each emergency physician is board-certified or meets the Alternate Pathway*.
3.16 Physicians who are not board-certified in emergency medicine who work in the ED are current in ATLS.
3.17 Emergency physicians on the call panel are regularly involved in the care of injured patients.
3.18 Emergency physicians who take trauma call have the documented 12 hours annually or 36 hours in three years of trauma-related CME and participate in an internal educational process conducted by the trauma program based on the principles of practice-based learning and the PIPS program. Staying current with their board certification satisfies the CME requirement.
3.19 An emergency physician participates in the trauma PIPS program and the TPOPPC.
3.20 A representative from the ED participated in the prehospital PIPS program.
3.21 The PIPS liaison has accrued an average of 12 hours annually or 36 hours in 3 years of external** trauma-related CME.
3.22 The emergency medicine representative or designee to the TPOPPC attends a minimum of 50% of these meetings.

3.23 A designated emergency physician is available to the Trauma Medical Director for PIPS issues that occur in the ED.

General Surgery

3.24 All trauma surgeons must have privileges in general surgery.

3.25 The trauma surgeon responds promptly to activations, remain knowledgeable in trauma care principles whether treating locally or transferring to a center with more resources, and participate in PIPS activities.

3.26 Trauma surgeons in adult trauma centers that treat more than 100 injured children annually are credentialed for pediatric trauma care by the center's credentialing body.

3.27 The center has general surgical coverage 24/7.

3.28 The trauma surgeon on call is dedicated to the trauma center while on duty.

3.29 A published backup call schedule for trauma surgery is available.

3.30 Seriously injured patients are admitted to or evaluated by an identifiable surgical service staffed by credentialed trauma providers.

3.31 The trauma surgeon is on site in the ED within 15 minutes of patient arrival 24/7 with an achievement rate of 80% as monitored by the PIPS program.

3.32 The trauma surgeon on call is involved in the decisions regarding diversion.

3.33 The trauma surgeon core group is adequately defined by the Trauma Medical Director.

3.34 The general surgery core group takes at least 60% of the total trauma call hours each month.

3.35 The core trauma surgeon attendance at the PIPS meetings is at least 50%.

3.36 Surgeons who take trauma call have the documented 12 hours annually or 36 hours in 3 years of trauma-related CME and an internal educational process conducted by the trauma program base on the principles of practice-based learning and the PIPS program. Staying current with their board certification satisfies the CME requirement.

3.37 All general surgeons are board-certified, meet the Alternate Pathway*, or are ACS Fellows.

3.38 Adequate (at least 50%) attendance by trauma surgery core group at the TPOPPC is documented.

Orthopedic Surgery

3.39 The center has orthopedic surgery available.

3.40 The orthopedic surgeon has privileges in general orthopedic surgery.

3.41 Orthopedic surgeons who care for injured patients are board-certified or meet the Alternate Pathway*.

3.42 Orthopedic team members have dedicated call at their institution and a backup call system, or documentation from the PIPS program that delays are not occurring.

3.43 An orthopedic team member is present in the ED within 30 minutes of consultation by the surgical trauma team leader for multiple injured patients 24/7 with an 80% achievement rate.

3.44 Orthopedic surgeons who take trauma call have documented 12 hours annually or 36 hours in 3 years of verifiable, external** trauma-related CME and participate in an internal educational process conducted by the trauma program based on the principles of practice-based learning and the PIPS program. Staying current with their board certification satisfies the CME requirement.

3.45 An orthopedic surgeon is designated to and participates in the PIPS program and TPOPPC. The orthopedic surgeon attends a minimum of 50% of these meetings.

3.46 The design of the backup call system, the responsibility of the orthopedic trauma team liaison, has been approved by the Trauma Medical Director.

3.47 The PIPS liaison has accrued an average of 12 hours annually or 36 hours in 3 years of external** trauma-related CME.

Neurosurgery

3.48 The neurosurgeons that care for trauma patients are board-certified or meet the Alternate Pathway*.

3.49 Neurotrauma care is promptly and continuously available for severe traumatic brain injury and spinal cord injury and for less severe head and spine injuries when necessary.

3.50 Qualified neurosurgeons are regularly involved in the care of head- and spinal-cord injured patients and are credentialed by the hospital with general neurosurgical privileges.

3.51 An attending neurosurgeon is present in the ED within 30 minutes of consultation by the surgical trauma team leader for multiple injured patients 24/7 with an 80% achievement rate.

3.52 The center provides an on-call neurosurgical schedule, with formally arranged contingency plans, that can be fulfilled with a backup call schedule in case the capability of the neurosurgeon, hospital, or system to care for neurotrauma patients is overwhelmed.

3.53 Neurosurgeons who take trauma call have the documented 12 hours annually or 36 hours in 3 years of verifiable trauma-related CME and participate in an internal educational process conducted by the trauma program based on the principles of practice-based learning and the PIPS program. Staying current with their board certification satisfies the CME requirement.

3.54 There is a dedicated neurosurgeon representative that attends a minimum of 50% of the multidisciplinary peer review committee meetings.

3.55 A neurosurgeon is designated to and participates in the PIPS program and TPOPPC. The neurosurgeon attends a minimum of 50% of these meetings.

3.56 The neurosurgeon liaison representative has the documented 12 hours annually or 36 hours in 3 years of verifiable, external** trauma-related CME.

Collaborative Clinical Services

Anesthesia

3.57 Anesthesia services are available 24/7.

3.58 Anesthesia services are on-site within 15 minutes of notification for emergency operations and airway problems 24/7 with an 80% achievement rate as monitored by the PIPS program.

3.59 Anesthesia services are available 24/7 and present for all operations.
3.60 Anesthesia services are promptly available for airway problems.
3.61 All anesthesiologists taking call have successfully completed a residency program.
3.62 When anesthesiology chief residents or Certified Registered Nurse Anesthetists (CRNA) are used to fulfill availability requirement, the staff anesthesiologist on call is (1) advised, (2) promptly available at all times, and (3) present for all operations, if requested by CRNA.
3.63 An anesthesiologist is designated to and participates in the PIPS program and the TPOPPC. The anesthesiologist attends a minimum of 50% of these meetings.
Operating Room (OR)
3.64 The OR is adequately staffed and immediately available.
3.65 Operating rooms are promptly available to allow for emergency operations on musculoskeletal injuries, such as open fracture debridement and stabilization and compartment decompression.
3.66 There is a mechanism for providing additional staff for a second operating room when the first operating room is occupied.
3.67 The OR has the all of the following essential equipment:
a. Rapid infusers;
b. Thermal control equipment for patients and resuscitation fluids;
c. Intraoperative radiologic capabilities;
d. Equipment for fracture fixation;
e. Equipment for endoscopic evaluation (bronchoscopy and gastrointestinal endoscopy);
f. Equipment necessary for craniotomy;
g. Cardiopulmonary bypass available 24/7; and
h. An operating microscope available 24/7.
3.68 A mechanism to ensure OR availability without undue delay for patients with semi-urgent orthopedic injuries.
3.69 A mechanism for documenting trauma surgeon presence in the OR for all trauma operations is in place.
Post-Anesthesia Care Unit (PACU)
3.70 The PACU has the necessary equipment to monitor and resuscitate patients.
3.71 The PACU has qualified nurses available 24/7 as needed during the patient's post anesthesia recovery phase.
3.72 The PACU is covered by a call team from home with documentation by the PIPS program that nurses are available and delays are not occurring.
Radiology
3.73 Conventional radiography and CT are available 24/7.

3.74 MRI capability is available 24/7.
3.75 Conventional catheter angiography and sonography are available 24/7.
3.76 If there is not an in-house CT technologist, the PIPS program documents response time.
3.77 The center has staff available on-site or via telemedicine within 30 minutes of notification for the interpretation of radiographs 24/7 with an 80% achievement rate.
3.78 The center has staff available on-site within 30 minutes of notification for the performance of complex imaging studies or interventional procedures 24/7 with an 80 % achievement rate.
3.79 Critical information is verbally communicated to the trauma team.
3.80 Diagnostic information is communicated in a written form and in a timely manner.
3.81 Changes in interpretation are monitored by the PIPS program.
3.82 Final reports accurately reflect communications, including changes between preliminary and final interpretations.
3.83 The center has policies designed to ensure that trauma patients who may require resuscitation and monitoring are accompanied by appropriately trained providers during transportation to and while in the radiology department.
3.84 A radiologist is designated to and participates in the PIPS program and TPOPPC. The radiologist attends a minimum of 50% of these meetings.
Intensive Care Unit (ICU)
3.85 The ICU has the necessary equipment to monitor and resuscitate patients.
3.86 Intracranial pressure monitoring equipment is available.
3.87 A qualified nurse is available 24/7 to provide care during the ICU phase.
3.88 The patient/nurse ratio does not exceed 2:1 for critically ill patients in the ICU.
3.89 The center has physician coverage for ICU in-house within 15 minutes of notification.
3.90 Physician coverage of critically ill trauma patients is available 24/7.
3.91 Physicians covering critically ill trauma patients respond rapidly to urgent problems as they arise.
3.92 The trauma surgeon remains in charge of patients in the ICU.
3.93 The trauma surgeon is kept informed of and concurs with major therapeutic and management decisions made by the ICU team.
3.94 The center has a surgical director or co-director for the ICU who is responsible for setting policies and administration related to trauma ICU patients.
3.95 The surgical director of the ICU has obtained critical care training during residency or fellowship and has expertise in perioperative and post-injury care of injured patients.
Other Surgical Specialists
3.96 The center has the following surgical specialists:
a. Orthopedic surgery;
b. Neurosurgery;

c. Cardiac surgery;
d. Thoracic surgery;
e. Hand surgery;
f. Plastic surgery;
g. Obstetric and gynecological surgery;
h. Ophthalmology;
i. Otolaryngology; and
j. Urology.
Medical Consultants
3.97 Specialty consultations for problems related to internal medicine, pulmonary medicine, cardiology, gastroenterology, and infectious disease are available.
Respiratory Therapy
3.98 A respiratory therapist is available to care for trauma patients 24/7.
Laboratory
3.99 Laboratory services are available 24/7 for the standard analysis of blood, urine, and other body fluids, including microsampling when appropriate.
3.100 The center has the capability for coagulation studies, blood gases, and microbiology.
3.101 The blood bank is capable of blood typing and cross-matching.
3.102 The blood bank has an adequate amount of red blood cells, fresh frozen plasma, platelets, cryoprecipitate, or appropriate coagulation factors to meet the needs of injured patients.
3.103 The center must have a transfusion protocol developed collaboratively between the trauma service and the blood bank.
Nutrition
3.104 Nutrition support services are available.
Social Services
3.105 The hospital has social services.
3.106 The center must screen all trauma patients for alcohol use and provide a brief intervention if appropriate.
Dialysis
3.107 The center has either dialysis capabilities or a transfer agreement with a facility that has dialysis capabilities.
Rehabilitation
3.108 Rehabilitation consulting services, occupational therapy, speech therapy, physical therapy, and social services are available during the acute phase of care.
3.109 The center has either rehabilitation services within its facility or a transfer agreement to a freestanding rehabilitation hospital.

4. Prehospital Trauma Care

4.1 The trauma program participates in prehospital care protocol development and the PIPS program.

5. Interhospital Transfer

5.1 The decision to transfer an injured patient to a specialty care facility in an acute situation is based solely on the needs of the patient.

5.2 There are transfer agreements in place with higher level trauma centers as well as specialty referral centers (e.g. burn, pediatric, and rehabilitation centers).

5.3 A mechanism for direct physician-to-physician contact is present for arranging patient transfer.

5.4 Centers that refer burn patients to a designated burn center must have in place written transfer protocols with a referral burn center.

5.5 The center must have guidelines addressing which patients (including pediatric patients) should be transferred and the safe transport of those patients.

6. PIPS

6.1 The center demonstrates a clearly defined PIPS program for the trauma population.

6.2 The PIPS program is supported by a reliable method of data collection that consistently gathers valid and objective information necessary to identify opportunities for improvement.

6.3 System and process issues (such as documentation and communication), clinical care issues (including identification and treatment of immediate life-threatening injuries), and transfer decisions must be reviewed by the PIPS program.

6.4 All trauma centers must use a risk stratified benchmarking system to measure performance and outcomes.

6.5 The trauma program must use clinical practice guidelines, protocols, and algorithms derived from evidence-based validation resources to achieve benchmark goals.

6.6 All process and outcome measures must be documented in a written PIPS plan and updated annually.

6.7 The trauma center demonstrates a clearly defined PIPS program for the trauma population. All process and outcome measures must be documented in a written PIPS plan and updated annually.

6.8 The process of analysis occurs at regular intervals to meet the needs of the program.

6.9 The process of analysis includes multidisciplinary review.

6.10 The process demonstrates problem resolution (loop closure).

6.11 The center is able to separately identify the trauma patient population for review.

6.12 The PIPS program must have audit filters to review and improve pediatric and adult patient care.

6.13 The center uses the registry to support its PIPS program.

6.14 Deaths are categorized as unanticipated mortality with opportunity for improvement, anticipated mortality with opportunity for improvement, or mortality without opportunity for improvement.

6.15 The PIPS program reviews the organ donation rate.

6.16 The PIPS program has defined conditions requiring the surgeon's immediate hospital presence.

6.17 The PIPS program ensures that the PACU has the necessary equipment to monitor and resuscitate patients.

6.18 All Trauma Team Activations must be categorized by the priority of response and quantified by number and percentage.

6.19 The center's PIPS program must work with receiving facilities to provide and obtain feedback on all transferred patients.

6.20 The PIPS program evaluates OR availability and delays when an on-call team is used.

6.21 The PIPS program documents the appropriate timeliness of the arrival of the MRI technologist.

6.22 The availability of the anesthesia services and the absence of delays in airway control or operations are documented in the PIPS program.

6.23 The 80% compliance of the surgeon's presence in the ED is confirmed and monitored by PIPS (15 minutes).

6.24 Programs that admit more than 10% of injured patients to nonsurgical services demonstrate the appropriateness of that practice through the PIPS program.

6.25 The adult trauma center that treats children reviews the care of injured children through the PIPS program.

6.26 In centers with ICUs, transfers to a higher level of care must be reviewed to determine the rationale for transfer, adverse outcomes, and opportunities for improvement.

6.27 If the center has an ICU, the PIPS program must document that timely and appropriate care and coverage are being provided.

6.28 The PIPS program reviews transfers to ensure appropriateness.

6.29 The PIPS program reviews the appropriateness of the decision to transfer or retain major orthopedic trauma.

6.30 There is a PIPS review of all neurotrauma patients who are diverted or transferred.

6.31 The results of analysis are documented and define corrective strategies.

6.32 The center must have a system to notify dispatch and EMS agencies when on divert status.

7. Trauma Program Operational Process Performance Committee (TPOPPC)

7.1 There is a TPOPPC. This multidisciplinary committee addresses, assesses, and corrects global trauma program and system issues. This committee handles process, includes all program-related services, meets regularly, takes attendance, has minutes, and works to correct all overall program deficiencies to continue to optimize patient care.

- 7.2 The TPOPPC must meet regularly, with required attendance of medical staff active in trauma resuscitation, to review systemic and care provider issues, as well as propose
- 7.3 There is TPOPPC participation from general surgery, orthopedic surgery, neurosurgery, emergency medicine, and anesthesia.
- 7.4 The TPOPPC is chaired by the Trauma Medical Director or designee.
- 7.5 Identified problem trends undergo multidisciplinary peer review by the TPOPPC.
- 7.6 There is documentation reflecting the review of operational issues and, when appropriate, the analysis and proposed corrective actions.

8. Time Sensitive Emergency (TSE) Registry

- 8.1 Trauma center’s program specific data is collected, analyzed, and used to support the internal PIPS program.
- 8.2 Data is submitted to the Idaho TSE Registry (Idaho Trauma Registry). At least 80% of cases must be entered into the registry within 180 days of treatment.
- 8.3 There is a process in place to verify that TSE Registry data is accurate and valid.
- 8.4 The trauma program ensures that registry data confidentiality measures are in place.

9. Outreach & Education

- 9.1 The center is engaged in trauma and injury prevention related public and professional education.
- 9.2 The center provides a mechanism for trauma-related education for nurses involved in trauma care.

10. Prevention

- 10.1 The center participates in traumatic injury prevention and bases activities on local data.
- 10.2 The center has a prevention coordinator with a demonstrated job description and salary support.
- 10.3 The center bases injury prevention activities on local data.
- 10.4 The center demonstrates collaboration with or participation in national, regional, or state injury prevention programs.

11. Disaster Planning and Management

- 11.1 The center meets the disaster-related requirements of the Joint Commission.
- 11.2 A trauma surgeon is a member of the center's disaster committee.
- 11.3 Center drills that test the individual hospital's disaster plan are conducted at least every 6 months.
- 11.4 The center has a disaster plan described in its Disaster Manual.

12. Organ Procurement

- 12.1 The center has an established relationship with a recognized Organ Procurement Organization (OPO).
- 12.2 There are written policies for triggering notification of the OPO.
- 12.3 The center has written protocols for declaration of brain death.

* Alternate Pathway

Emergency Physicians

In rare circumstances a non-board-certified emergency physician may be included in the trauma service. This situation may arise when a limited number of qualified emergency physicians are available to a hospital that wants to establish a verified trauma program. To assist these programs in providing optimal care to injured patients with existing physician resources, the following alternative to board certification is available. All of the following criteria must be met:

1. A letter by the trauma medical director indicating this critical need in the trauma program because of the physician's experience or the limited physician resources in emergency medicine within the hospital trauma program;
2. Evidence that the emergency physician completed an accredited residency training program in that specialty. This completion must be certified by a letter from the program director;
3. Documentation of current status as a provider or instructor in ATLS;
4. A list of the 36 hours of trauma-related continuing medical education (CME) during the past three years;
5. Documentation that the emergency physician is present for at least 50% of the trauma performance improvement and educational meetings;
6. Documentation of membership or attendance at local and regional or national trauma meetings during the last three years; and
7. Performance improvement assessment by the trauma medical director and the director of the emergency department demonstrating that care provided by the emergency physician compares favorably with care of the other members of the emergency department on the trauma call panel.

General Surgery

In rare circumstances a non-board-certified surgeon may be included in the trauma service. This situation may arise when a limited number of qualified surgeons are available to a hospital that desires to establish a verified trauma program. To assist these programs in providing optimal care to injured patients with existing surgical resources, the following alternative to board certification is available. This option cannot be used for the director of a trauma program. All of the following must be met:

1. A letter by the trauma medical director indicating this critical need in the trauma program because of the physician's experience or the limited physician resources in general surgery within the hospital trauma program;
2. Evidence that the surgeon completed an accredited residency training program in that specialty. This completion must be certified by a letter from the program director;
3. Documentation of current status as a provider or instructor in ATLS;
4. A list of the 36 hours of trauma-related continuing medical education (CME) during the past three years;
5. Documentation that the surgeon is present for at least 50% of the trauma performance improvement and educational meetings;
6. Documentation of membership or attendance at local and regional or national trauma meetings during the last three years;
7. A list of patients treated during the past year with accompanying Injury Severity Score and outcome data;
8. Performance improvement assessment by the Trauma Medical Director demonstrating that the morbidity and mortality results for patients treated by the surgeon compare favorably with the morbidity and mortality results for comparable patients treated by other members of the trauma call panel; and
9. Licensed to practice medicine and approved for full and unrestricted surgical privileges by the hospital's credentialing committee.

Neurosurgery

In rare circumstances a non-board-certified neurosurgeon may be included in the trauma service. This situation may arise when a limited number of qualified neurosurgeons are available to a community that desires to establish a verified trauma program. To assist these programs providing optimal care to injured patients with existing neurosurgical resources, the following alternative to board certification is available. All of the following criteria must be met:

1. A letter by the trauma medical director indicating this critical need in the trauma program because of the physician's experience or the limited physician resources in general surgery within the hospital trauma program;
2. Evidence that the neurosurgeon completed an accredited residency training program in that specialty. This completion must be certified by a letter from the Trauma Medical Director;
3. Documentation of current status as a provider or instructor in the Advanced Trauma Life Support (ATLS) program;
4. A list of the 36 hours of trauma-related continuing medical education (CME) during the past three years;
5. Documentation that the neurosurgeon is present for at least 50% of the trauma performance improvement and educational meetings;
6. Documentation of membership or attendance at local, regional, and national trauma meetings during the past 3 years;
7. A list of patients treated during the past year with accompanying Injury Severity Score and outcome data;
8. Performance improvement assessment by the Trauma Medical Director demonstrating that the morbidity and mortality results for patients treated by the neurosurgeon compare favorably with the morbidity and mortality results for comparable patients treated by other members of the trauma call panel; and
9. Licensed to practice medicine and approved for full and unrestricted surgical privileges by the hospital's credentialing committee.

Orthopedic Surgery

In rare circumstances a non-board-certified orthopedic surgeon may be included in the trauma service. This situation may arise when a limited number of qualified orthopedic surgeons are available to a community that desires to establish a verified trauma program. To assist these programs in providing optimal care to injured patients with existing surgical resources, the following alternative to board certification is available. All of the following criteria must be met:

1. A letter by the Trauma Medical Director indicating this critical need in the trauma program because of the physician's experience or the limited physician resources in general surgery within the hospital trauma program;
2. Evidence that the orthopedic surgeon completed an accredited residency training program in that specialty. This completion must be certified by a letter from the Trauma Medical Director;
3. Documentation of current status as a provider or instructor in the Advanced Trauma Life Support (ATLS) program;
4. A list of the 36 hours of trauma-related continuing medical education (CME) during the past three years;
5. Documentation that the orthopedic surgeon is present for at least 50% of trauma performance improvement and educational meetings;
6. Documentation of membership or attendance at local, regional, and national trauma meetings during the past 3 years;
7. A list of patients treated during the past year with accompanying Injury Severity Score and outcome data;
8. Performance improvement assessment by the Trauma Medical Director demonstrating that the morbidity and mortality results for patients treated by the orthopedic surgeon compare favorably with the morbidity and mortality results for comparable patients treated by other members of the trauma call panel; and
9. Licensed to practice medicine and approved for full and unrestricted surgical privileges by the hospital's credentialing committee.

** External continuing education does not include: in-service, case-based learning; grand rounds; internal trauma symposia; and in-house publications disseminating information gained from a local conference.

Level III Trauma Center

Designation Criteria for Level III Trauma Center

Criteria for designation of Level III Trauma Centers are based upon Resources for Optimal Care of the Injured Patient, COT/American College of Surgeons, 2006. Criteria to verify the services and systems are in place to ensure optimal care of the trauma patient are defined in that document. The following elements must be met for designation as a Level III Trauma Center in Idaho.

1. Trauma System

Time Sensitive Emergencies (TSE)

1.1 The center's trauma program staff has sufficient involvement in regional trauma system planning, development, and operation.

Center Mission

1.2 There is a current resolution supporting the trauma center from the medical staff.

1.3 There is a current resolution supporting the trauma center from the hospital board.

1.4 There is sufficient infrastructure, staff, equipment, and support to the trauma program to provide adequate provision of care.

1.5 The trauma program has adequate administrative support and defined lines of authority that ensure comprehensive evaluation of all aspects of trauma care.

2. Description of Trauma Center

Description of the Trauma Center

2.1 All trauma facilities are on the same campus.

2.2 The trauma program is empowered to address issues that involve multiple disciplines.

2.3 The adult trauma center that treats more than 100 injured children annually has a pediatric Emergency Department (ED) area, a pediatric intensive care area, appropriate resuscitation equipment, and pediatric-specific trauma Performance Improvement and Patient Safety (PIPS) program.

2.4 The center provides some means of referral and access to trauma center resources.

2.5 Center provides initial resuscitation of the trauma patient and immediate intervention to control hemorrhage and to assure maximum stabilization prior to referral to an appropriate higher level of care.

Trauma Leadership

Trauma Medical Director

2.6 The trauma program has a Trauma Medical Director with the authority and administrative support to lead the program.

2.7 The Trauma Medical Director is a board-certified surgeon or an American College of Surgeons (ACS) Fellow.

2.8 The Trauma Medical Director is current in Advanced Trauma Life Support (ATLS).

2.9 The Trauma Medical Director has accrued an average of 12 hours annually or 36 hours in 3 years of external** trauma-related Continuing Medical Education (CME).

2.10 The Trauma Medical Director participates in trauma call.
2.11 The Trauma Medical Director maintains personal involvement in patient care, staff education, and professional organizations.
2.12 The Trauma Medical Director has sufficient authority to set qualifications for the trauma servicemembers.
2.13 The roles of emergency physicians and trauma surgeons are defined, agreed on, and approved by the Trauma Medical Director.
2.14 The Trauma Medical Director has the authority to correct deficiencies in trauma care or to exclude from trauma call any trauma team members who do not meet specified criteria.
2.15 The Trauma Medical Director has the authority to recommend changes for the trauma team based on performance review.
2.16 The Trauma Medical Director has the responsibility and authority to determine each general surgeon's ability to participate on the trauma team through the trauma PIPS program and hospital policy.
2.17 The structure of the trauma program allows the Trauma Medical Director to have oversight and authority for care of injured patients who may be admitted to individual surgeons.
2.18 The Trauma Medical Director has the responsibility and authority to ensure compliance with verification requirements.
2.19 The Trauma Medical Director is involved in the development of the center's bypass protocol.
2.20 The Trauma Medical Director documents the dissemination of information to the PIPS committee.
2.21 In circumstances when attendance is not mandated (noncore members), the Trauma Medical Director ensures and documents dissemination of information from the PIPS program.
2.22 The Trauma Medical Director ensures and documents dissemination of information and findings from the Trauma Program Operational Process Performance Improvement Committee (TPOPPC) meetings to noncore surgeons on the trauma team.
2.23 The Trauma Medical Director is accountable for all trauma care and exercises administrative authority for the trauma program.
Trauma Program Manager
2.24 The Trauma Program Manager has clinical experience caring for injured patients and a minimum of 16 hours of trauma-related continuing education per year.
3. Clinical Functions
3.1 The criteria for graded activation is clearly defined by the center and continuously evaluated by the PIPS program.
3.2 The criteria for the highest level of activation is clearly defined and evaluated by the PIPS program.

3.3 The trauma service retains responsibility for its patients and coordinates all therapeutic decisions.

3.4 The trauma surgeon is kept informed of and concurs with major therapeutic and management decisions made by the Intensive Care Unit (ICU) team.

3.5 There is a method to identify injured patients, monitor the provision of health care services, make periodic rounds, and hold formal and informal discussions with individual practitioners.

3.6 The center must be the local trauma authority and assume the responsibility for providing training for prehospital and hospital-based providers.

3.7 The center has established protocols to ensure immediate and appropriate care of the adult and pediatric trauma patient.

Trauma Team

3.8 Response to all three Trauma Priority levels must be defined and reviewed annually.

3.9 All trauma/general surgeons, emergency physicians, and midlevel providers on the Trauma Team have completed Advanced Trauma Life Support (ATLS) at least once.

3.10 The Trauma Team must be fully assembled within 30 minutes of notification or patient arrival (whichever is shorter) with an achievement rate of 80%.

3.11 Trauma Team members participate in PIPS and TPOPPC.

3.12 Trauma Team physicians and midlevel providers are credentialed by the medical staff and governing board.

Emergency Department (ED)

3.13 The ED has a designated Emergency Physician Director supported by an appropriate number of additional physicians to ensure immediate care for injured patients.

3.14 Emergency physicians cover in-house emergencies with a PIPS process demonstrating the efficacy of this practice.

3.15 Coverage of emergencies in the ICU leaves the ED with appropriate physician coverage.

3.16 Physicians who are not board-certified in emergency medicine who work in the ED are current in ATLS.

3.17 Emergency physicians on the call panel are regularly involved in the care of injured patients.

3.18 An emergency physician participates in the trauma PIPS program and the TPOPPC.

3.19 A representative from the ED participated in the prehospital PIPS program.

3.20 The emergency medicine representative or designee to the TPOPPC attends a minimum of 50% of these meetings.

3.21 A designated emergency physician is available to the Trauma Medical Director for PIPS issues that occur in the ED.

General Surgery

3.22 All trauma surgeons must have privileges in general surgery.

3.23 The trauma surgeons respond promptly to activations, remain knowledgeable in trauma care principles whether treating locally or transferring to a center with more resources, and participate in PIPS activities.
3.24 Trauma surgeons in adult trauma centers that treat more than 100 injured children annually are credentialed for pediatric trauma care by the center's credentialing body.
3.25 The center has general surgical coverage 24/7.
3.26 The trauma surgeon on call is dedicated to the trauma center while on duty.
3.27 A published backup call schedule for trauma surgery is available.
3.28 Seriously injured patients are admitted to or evaluated by an identifiable surgical service staffed by credentialed trauma providers.
3.29 The trauma surgeon is present in the ED within 30 minutes of notification 24/7 with an 80% achievement rate as monitored by the PIPS program.
3.30 The trauma surgeon on call is involved in the decisions regarding diversion.
3.31 The general surgery core group is defined by the Trauma Medical Director.
3.32 The general surgery core group takes at least 60% of the total trauma call hours each month.
3.33 The general surgery core group attends a minimum of 50% of the TPOPPC meetings.
Orthopedic Surgery
3.34 The center has orthopedic surgery available.
3.35 Orthopedic surgeons taking trauma call must have privileges in general orthopedic surgery.
3.36 Orthopedic surgeons who care for trauma patients are board-certified.
3.37 Orthopedic team members have dedicated call at their institution and a backup call system, or documentation from the PIPS program that delays are not occurring.
3.38 An orthopedic team member is present in the ED within 30 minutes of consultation by the surgical trauma team leader for multiple injured patients 24/7 with an 80% achievement rate.
3.39 An orthopedic surgeon is designated to and participates in the PIPS program, TPOPPC and attend a minimum of 50% of these meetings.
3.40 The design of the backup call system, the responsibility of the orthopedic trauma team liaison, has been approved by the Trauma Medical Director.
3.41 The PIPS liaison has accrued an average of 8 hours annually or 24 hours in 3 years of external** trauma-related CME.
Collaborative Clinical Services
Anesthesia
3.42 Anesthesia services are available 24/7.
3.43 Anesthesia services are on-site within 30 minutes of notification for emergency operations and airway problems 24/7 with an 80% achievement rate as monitored by the PIPS process.

- 3.44 Anesthesia services are available 24/7 and present for all operations.
- 3.45 Anesthesia services are promptly available for airway problems.
- 3.46 All anesthesiologists taking call have successfully completed a residency program.
- 3.47 When anesthesiology chief residents or Certified Registered Nurse Anesthetists (CRNA) are used to fulfill availability requirement, the staff anesthesiologist on call is (1) advised, (2) promptly available at all times, and (3) present for all operations if requested by the CRNA.
- 3.48 An anesthesiologist is designated to and participates in the PIPS program, TPOPPC and attend a minimum of 50% of these meetings.

Operating Room (OR)

- 3.49 The OR is adequately staffed and immediately available.
- 3.50 Operating rooms are promptly available to allow for emergency operations on musculoskeletal injuries, such as open fracture debridement and stabilization and compartment decompression.
- 3.51 The OR has the all of the following essential equipment:
 - a. Rapid infusers;
 - b. Thermal control equipment for patients and resuscitation fluids;
 - c. Intraoperative radiologic capabilities;
 - d. Equipment for fracture fixation;
 - e. Equipment for endoscopic evaluation (bronchoscopy and gastrointestinal endoscopy); and
 - f. Equipment necessary for craniotomy (unless the center does not offer neurosurgery services).
- 3.52 A mechanism for documenting trauma surgeon presence in the OR for all trauma operations is in place.

Post-Anesthesia Care Unit (PACU)

- 3.53 The PACU has the necessary equipment to monitor and resuscitate patients.
- 3.54 The PACU has qualified nurses available 24/7 as needed during the patient's post anesthesia recovery phase.
- 3.55 The PACU is covered by a call team from home with documentation by the PIPS program that nurses are available and delays are not occurring.

Radiology

- 3.56 Conventional radiography and CT are available 24/7.
- 3.57 MRI capability is available 24/7.
- 3.58 If there is not an in-house CT technologist, the PIPS program documents response time.
- 3.59 The center has staff available on-site or via telemedicine within 30 minutes of notification for the interpretation of radiographs 24/7 with an 80% achievement rate.
- 3.60 Critical information is verbally communicated to the trauma team.

3.61 Diagnostic information is communicated in a written form and in a timely manner.
3.62 Changes in interpretation are monitored by the PIPS program.
3.63 Final reports accurately reflect communications, including changes between preliminary and final interpretations.
3.64 The center has policies designed to ensure that trauma patients who may require resuscitation and monitoring are accompanied by appropriately trained providers during transportation to and while in the radiology department.
Intensive Care Unit (ICU)
3.65 The ICU has the necessary equipment to monitor and resuscitate patients.
3.66 There is intracranial pressure monitoring equipment if the center admits neurotrauma patients.
3.67 A qualified nurse is available 24/7 to provide care during the ICU phase.
3.68 The patient/nurse ratio does not exceed 2:1 for critically ill patients in the ICU.
3.69 When a patient is critically ill, there is a mechanism in place to provide prompt availability of ICU physician coverage 24/7.
3.70 The trauma surgeon remains in charge of patients in the ICU.
3.71 The center has a surgical director or co-director for the ICU who is responsible for setting policies and administration related to trauma ICU patients.
Medical Consultants
3.72 Internal medicine specialists are available.
Respiratory Therapy
3.73 There is a respiratory therapist available or on call 24/7.
Laboratory
3.74 Laboratory services are available 24/7 for the standard analysis of blood, urine, and other body fluids, including microsampling when appropriate.
3.75 The center has the capability for coagulation studies, blood gases and microbiology.
3.76 The blood bank is capable of blood typing and cross-matching.
3.77 The blood bank has an adequate amount of red blood cells, fresh frozen plasma, platelets, cryoprecipitate, or appropriate coagulation factors to meet the needs of injured patients.
3.78 The center must have a transfusion protocol developed collaboratively between the trauma service and the blood bank.
Nutrition
3.79 Nutrition support services are available.
Social Services
3.80 The hospital has social services.
3.81 The center must screen all trauma patients for alcohol use and provide a brief intervention if appropriate.

Dialysis
3.82 The center has either dialysis capabilities or a transfer agreement with a facility that has dialysis capabilities.
Rehabilitation
3.83 The hospital has physical therapy services.
3.84 The center has either rehabilitation services within its facility or a transfer agreement to a freestanding rehabilitation hospital.
4. Prehospital Trauma Care
4.1 The trauma program participates in prehospital care protocol development and the PIPS program.
5. Interhospital Transfer
5.1 The decision to transfer an injured patient to a specialty care facility in an acute situation is based solely on the needs of the patient.
5.2 There are transfer agreements in place with higher level trauma centers as well as specialty referral centers (e.g. burn, pediatric, and rehabilitation centers).
5.3 A mechanism for direct physician-to-physician contact is present for arranging patient transfer.
5.4 Centers that refer burn patients to a designated burn center must have in place written transfer protocols with a referral burn center.
5.5 There is a plan, approved by the Trauma Medical Director, that determines appropriate transfer of patients with neurologic injury when no neurosurgical coverage is present.
5.6 The center must have guidelines addressing which patients (including pediatric patients) should be transferred and the safe transport of those patients.
6. Process Improvement and Patient Safety (PIPS)
6.1 The center demonstrates a clearly defined PIPS program for the trauma population.
6.2 The PIPS program is supported by a reliable method of data collection that consistently gathers valid and objective information necessary to identify opportunities for improvement.
6.3 System and process issues (such as documentation and communication), clinical care issues (including identification and treatment of immediate life-threatening injuries), and transfer decisions must be reviewed by the PIPS program.
6.4 All trauma centers must use a risk stratified benchmarking system to measure performance and outcomes.
6.5 The trauma program must use clinical practice guidelines, protocols, and algorithms derived from evidence-based validation resources to achieve benchmark goals.
6.6 All process and outcome measures must be documented in a written PIPS plan and updated annually.
6.7 The trauma center demonstrates a clearly defined PIPS program for the trauma population. All process and outcome measures must be documented in a written PIPS plan and updated annually.

6.8 The process of analysis occurs at regular intervals to meet the needs of the program.
6.9 The process of analysis includes multidisciplinary review.
6.10 The process demonstrates problem resolution (loop closure).
6.11 The center is able to separately identify the trauma patient population for review.
6.12 The PIPS program must have audit filters to review and improve pediatric and adult patient care.
6.13 The center uses the registry to support its PIPS program.
6.14 Deaths are categorized as unanticipated mortality with opportunity for improvement, anticipated mortality with opportunity for improvement, or mortality without opportunity for improvement.
6.15 The PIPS program reviews the organ donation rate.
6.16 The PIPS program has defined conditions requiring the surgeon's immediate hospital presence.
6.17 The PIPS program ensures that the PACU has the necessary equipment to monitor and resuscitate patients.
6.18 All Trauma Team Activations must be categorized by the priority of response and quantified by number and percentage.
6.19 The center's PIPS program must work with receiving facilities to provide and obtain feedback on all transferred patients.
6.20 The PIPS program evaluates OR availability and delays when an on-call team is used.
6.21 The PIPS program documents the appropriate timeliness of the arrival of the MRI technologist.
6.22 The availability of the anesthesia services and the absence of delays in airway control or operations are documented in the PIPS program.
6.23 The 80% compliance of the surgeon's presence in the ED is confirmed and monitored by PIPS (30 minutes).
6.24 Programs that admit more than 10% of injured patients to nonsurgical services demonstrate the appropriateness of that practice through the PIPS program.
6.25 The adult trauma center that treats children reviews the care of injured children through the PIPS program.
6.26 In centers with ICUs, transfers to a higher level of care must be reviewed to determine the rationale for transfer, adverse outcomes, and opportunities for improvement.
6.27 If the center has an ICU, the PIPS program must document that timely and appropriate care and coverage are being provided.
6.28 The PIPS program reviews transfers to ensure appropriateness.
6.29 The PIPS program reviews the appropriateness of the decision to transfer or retain major orthopedic trauma.
6.30 There is a performance improvement program that demonstrates appropriate care in the center that treats neurotrauma patients.

6.31 The results of analysis are documented and define corrective strategies.

6.32 The center must have a system to notify dispatch and EMS agencies when on divert status.

7. Trauma Program Operational Process Performance Committee (TPOPPC)

7.1 There is a TPOPPC. This multidisciplinary committee addresses, assesses, and corrects global trauma program and system issues. This committee handles process, includes all program-related services, meets regularly, takes attendance, has minutes, and works to correct all overall program deficiencies to continue to optimize patient care.

7.2 The TPOPPC must meet regularly, with required attendance of medical staff active in trauma resuscitation, to review systemic and care provider issues, as well as propose improvements to the care of the injured.

7.3 There is a TPOPPC with participation from general surgery, orthopedic surgery, neurosurgery, emergency medicine, and anesthesia.

7.4 The TPOPPC is chaired by the Trauma Medical Director.

7.5 Identified problem trends undergo multidisciplinary peer review by the TPOPPC.

7.6 There is documentation reflecting the review of operational issues and, when appropriate, the analysis and proposed corrective actions.

8. Time Sensitive Emergency (TSE) Registry

8.1 Trauma center's program specific data are collected, analyzed, and used to support the internal PIPS program.

8.2 Data is submitted to the Idaho TSE Registry (Idaho Trauma Registry). At least 80% of cases must be entered into the registry within 180 days of treatment.

8.3 There is a process in place to verify that TSE Registry data is accurate and valid.

8.4 The trauma program ensures that registry data confidentiality measures are in place.

9. Outreach & Education

9.1 The trauma center is engaged in trauma and injury prevention related public and professional education.

9.2 The hospital provides a mechanism for trauma-related education for nurses involved in trauma care.

10. Prevention

10.1 The center participates in traumatic injury prevention and bases activities on local data.

10.2 The center has a prevention coordinator with a demonstrated job description and salary support.

10.3 The center bases injury prevention activities on local data.

10.4 The center demonstrates collaboration with or participation in national, regional, or state injury prevention programs.

11. Disaster Planning and Management

11.1 The center meets the disaster-related requirements of the Joint Commission.

11.2 A trauma surgeon is a member of the center's disaster committee.

11.3 Center drills that test the individual hospital's disaster plan are conducted at least every 6 months.

11.4 The center has a disaster plan described in its Disaster Manual.

12. Organ Procurement

12.1 The center has an established relationship with a recognized Organ Procurement Organization (OPO).

12.2 There are written policies for triggering notification of the OPO.

12.3 The center has written protocols for declaration of brain death.

** External continuing education does not include: in-service, case-based learning; grand rounds; internal trauma symposia; and in-house publications disseminating information gained from a local conference.

Level IV Trauma Center

Designation Criteria for Level IV Trauma Center

Criteria for designation of Level IV Trauma Centers are based upon Resources for Optimal Care of the Injured Patient, COT/American College of Surgeons, 2006. Criteria to verify the services and systems are in place to ensure optimal care of the trauma patient are defined in that document. The following elements must be met for designation as a Level IV Trauma Center in Idaho.

Type I criteria must be in place at the time of the verification site visit to achieve verification. Type II criteria are also required but are less critical. If three or fewer Type II deficiencies are present at the time of the site visit and no Type I criteria are cited, a 1-year certificate of verification is issued. During the ensuing 12 months, if the trauma center successfully corrects the deficiencies, the period of verification will be extended to 3 years from the date of the initial verification visit.

If any Type I deficiency or more than three Type II deficiencies are present at the time of the initial verification site visit, the hospital will not be verified.

1. Trauma System	
Time Sensitive Emergencies (TSE)	
1.1 The center is involved in regional trauma system planning, development, and operation.	I
Center Mission	
1.2 There is a current resolution supporting the trauma center from the medical staff.	I
1.3 There is a current resolution supporting the trauma center from the hospital board.	I
1.4 There is sufficient infrastructure, staff, equipment, and support to the trauma program to provide adequate provision of care.	I
2. Description of Trauma Center	
Description of the Trauma Center	
2.1 The trauma program is empowered to address issues that involve multiple disciplines.	I
2.2 Center provides initial resuscitation of the trauma patient and immediate intervention to control hemorrhage and to assure maximum stabilization prior to referral to an appropriate higher level of care.	I
Trauma Leadership	
Trauma Medical Director	
2.3 The trauma program has a Trauma Medical Director with the authority and administrative support to lead the program.	I
2.4 The Trauma Medical Director is current in ATLS.	I
2.5 The Trauma Medical Director maintains personal involvement in patient care, staff education, and professional organizations.	I
2.6 The Trauma Medical Director must work with midlevel providers to ensure appropriate orientation, credentialing, and skill maintenance.	II

2.7 The Trauma Medical Director is responsible for developing and directing the quality improvement program.	I
2.8 The Trauma Medical Director is accountable for all trauma care and exercises administrative authority for the trauma program.	I
2.9 The Trauma Medical Director participates in the internal trauma Quality Improvement (QI) process by attending at least 50% of meetings.	I
Trauma Program Manager	
2.10 The center has a Trauma Program Manager. The Trauma Program Manager shows evidence of educational preparation and clinical experience caring for injured patients.	I
2.11 The Trauma Program Manager is responsible for the use of trauma registry data for quality improvement and trauma education.	I
2.12 The Trauma Program Manager works with the Trauma Medical Director to address the multidisciplinary needs of the trauma program.	I
2.13 The Trauma Program Manager serves as a liaison to local Emergency Medical Services (EMS) agencies and accepting centers.	I
3. Clinical Functions	
3.1 The criteria for graded activation must be clearly defined by the center, with the highest level of activation including the six required criteria listed in Table 1.	II
3.2 At minimum, the six criteria listed in Table 1 to be included in the highest level of activation in all trauma centers.	II
3.3 The center must be able to provide the necessary human and physical resources to properly administer acute care consistent with Level IV verification.	I
3.4 The center has written protocols to determine which types of patients are admitted and which are transferred.	I
3.5 The center must be the local trauma authority and assume the responsibility for providing training for prehospital and hospital-based providers.	II
3.6 The center has established protocols to ensure immediate and appropriate care of the adult and pediatric trauma patient.	I
Trauma Team	
3.7 Criteria for all levels of Trauma Team activation (TTA) must be defined and reviewed annually. See table 1 for minimum acceptable criteria.	II
3.8 All trauma/general surgeons, emergency providers, and midlevel providers on the Trauma Team have completed Advanced Trauma Life Support (ATLS) at least once.	II
3.9 The Trauma Team must be fully assembled within 30 minutes of notification or patient arrival (whichever is shorter) with an 80% achievement rate.	II
3.10 Trauma team members participate in multi-disciplinary trauma committee and the quality improvement process.	I
3.11 Trauma Team physicians and midlevel providers are credentialed by the medical staff and governing board.	I

Emergency Department (ED)	
3.12 The physician or midlevel provider will be in the emergency department (ED) on patient arrival for the highest level of activation, provided there is adequate notification from the prehospital providers. The maximum acceptable response time is 30 minutes from patient arrival in the ED. The Process Improvement and Patient Safety (PIPS) program must demonstrate that the provider's presence is in compliance at least 80% of the time.	I
3.13 The center must have emergency coverage by a physician or midlevel provider 24/7.	I
3.14 The ED must be adequately staffed and capable of performing resuscitation 24/7.	I
3.15 ED providers must have completed ATLS at least once.	II
3.16 Midlevel providers who participate in the initial evaluation of trauma patients must maintain current ATLS certification.	II
Collaborative Clinical Services	
Radiology	
3.17 Conventional radiology services (non-CT) must be available 24/7.	I
Laboratory	
3.18 Laboratory services are available 24/7 for the standard analysis of blood, urine, and other body fluids, including microsampling when appropriate.	I
3.19 The blood bank must be capable of blood typing and cross-matching.	I
3.20 The center must have a transfusion protocol developed collaboratively between the trauma service and the blood bank.	I
Nutrition	
3.21 Nutrition support services are available.	II
Social Services	
3.22 The hospital has social services.	I
3.23 The center must screen all trauma patients for alcohol use and provide a brief intervention if appropriate.	II
4. Prehospital Trauma Care	
4.1 The trauma program participates in prehospital care protocol development and the PIPS program.	II
5. Interhospital Transfer	
5.1 The decision to transfer an injured patient to a specialty care facility in an acute situation is based solely on the needs of the patient.	I
5.2 There are transfer agreements in place with higher level trauma centers as well as specialty referral centers (e.g. burn, pediatric, and rehabilitation centers).	I
5.3 A mechanism for direct physician-to-physician contact is present for arranging patient transfer.	I

5.4 Centers that refer burn patients to a designated burn center must have in place written transfer protocols with a referral burn center.	II
5.5 The center must have guidelines addressing which patients (including pediatric patients) should be transferred and the safe transport of those patients.	I
6. Process Improvement and Patient Safety (PIPS)	
6.1 The center must have a PIPS program to ensure optimal care and continuous improvement of care.	I
6.2 The PIPS program is supported by a reliable method of data collection that consistently gathers valid and objective information necessary to identify opportunities for improvement.	II
6.3 System and process issues (such as documentation and communication), clinical care issues (including identification and treatment of immediate life-threatening injuries), and transfer decisions must be reviewed by the PIPS program.	I
6.4 The trauma program must use clinical practice guidelines, protocols, and algorithms derived from evidence-based validation resources to achieve benchmark goals.	II
6.5 All process and outcome measures must be documented in a written PIPS plan and updated annually.	II
6.6 The process of analysis occurs at regular intervals to meet the needs of the program.	I
6.7 The process demonstrates problem resolution (loop closure).	I
6.8 The center is able to separately identify the trauma patient population for review.	I
6.9 The PIPS program must have audit filters to review and improve pediatric and adult patient care.	II
6.10 The center uses the registry to support its PIPS program.	I
6.11 Deaths are categorized as unanticipated mortality with opportunity for improvement, anticipated mortality with opportunity for improvement, or mortality without opportunity for improvement.	I
6.12 The PIPS program reviews the organ donation rate.	II
6.13 The PIPS program has defined conditions requiring the surgeon's immediate hospital presence if available.	I
6.14 The PIPS program ensures that the Post-Anesthesia Care Unit (PACU) has the necessary equipment to monitor and resuscitate patients if available.	I
6.15 All Trauma Team activations must be categorized by the priority of response and quantified by number and percentage.	II
6.16 The center's PIPS program must work with receiving facilities to provide and obtain feedback on all transferred patients.	I
6.17 The PIPS program evaluates OR availability and delays when an available on-call team is used.	II

6.18 If available, delays in trauma surgeon response time must be monitored and reviewed for cause of delay and opportunities for improvement. Corrective actions must be documented.	II
6.19 Programs that admit (inpatient or observation) more than 10% of injured patients to nonsurgical services demonstrate the appropriateness of that practice through the PIPS program.	I
6.20 The adult trauma center that treats children reviews the care of injured children through the PIPS program.	II
6.21 In centers with Intensive Care Units (ICU), transfers to a higher level of care must be reviewed to determine the rationale for transfer, adverse outcomes, and opportunities for improvement.	II
6.22 If the center has an ICU, the PIPS program must document that timely and appropriate care and coverage are being provided.	II
6.23 The center must perform a PIPS review of all admissions and transfers.	I
6.24 The results of analysis are documented and define corrective strategies.	II
6.25 The center must have a system to notify dispatch and Emergency Medical Services (EMS) agencies when on divert status.	I
7. Trauma Program Operational Process Performance Committee (TPOPPC)	
7.1 There is a TPOPPC. This multidisciplinary committee addresses, assesses, and corrects global trauma program and system issues. This committee handles process, includes all program-related services, meets regularly, takes attendance, has minutes, and works to correct all overall program deficiencies to continue to optimize patient care.	I
7.2 The TPOPPC must meet regularly, with required attendance of medical staff active in trauma resuscitation, to review systemic and care provider issues, as well as propose improvements to the care of the injured.	I
8. Time Sensitive Emergency (TSE) Registry	
8.1 Trauma center's program specific data are collected, analyzed, and used to support the internal PIPS program.	I
8.2 Data is submitted to the Idaho TSE Registry (Idaho Trauma Registry). At least 80% of cases must be entered into the registry within 180 days of treatment.	I
8.3 There is a process in place to verify that TSE Registry data is accurate and valid.	I
8.4 The trauma program ensures that registry data confidentiality measures are in place.	I
9. Outreach & Education	
9.1 The center must provide annual trauma and injury prevention related public and professional education.	II
10. Prevention	
10.1 The center participates in traumatic injury prevention.	I
10.2 The center must have someone in a leadership position that has injury prevention as part of his or her job description.	II

10.3 The center bases injury prevention activities on local data.	II
11. Disaster Planning and Management	
11.1 The center meets the disaster-related National Incident Management System.	I
11.2 The Trauma Medical Director is a member of the center's disaster committee.	I
11.3 The center must participate in regional disaster management plans and exercises.	II
11.4 The center has a disaster plan described in its Disaster Manual.	II
12. Organ Procurement	
12.1 The center has written protocols for declaration of brain death.	II

Table 1. Minimum Criteria for Full Trauma Team Activation
Confirmed blood pressure less than 90 mm Hg at any time in adults and age-specific hypotension in children;
Gunshot wounds to the neck, chest, or abdomen or extremities proximal to the elbow/knee;
Glasgow Coma Scale score less than 9 with mechanism attributed to trauma;
Transfer patients from other hospitals receiving blood to maintain vital signs;
Intubated patients transferred from the scene, OR
Patients who have respiratory compromise or are in need of emergent airway;
Included intubated patients who are transferred from another facility with ongoing respiratory compromise (does not include patients intubated at another facility who are now stable from a respiratory standpoint); and
Emergency physician's discretion.

Level V Trauma Center

Designation Criteria for Level V Trauma Center

The following elements must be met for designation as a Level V Trauma Center in Idaho.

E- Essential element for designation.

D- Desired element for designation.

1. Trauma System	
Time Sensitive Emergencies (TSE)	
1.1 The center must participate in their Regional Time Sensitive Emergency (TSE) Committee.	E
Center Mission	
1.2 There is a current resolution supporting the trauma center from the medical staff.	E
1.3 There is a current resolution supporting the trauma center from the facility board.	E
1.4 The center is a health care facility (as defined in section 10 of the TSE Rules) with the commitment, medical staff, personnel, and training necessary to provide initial care and stabilization of the trauma patient.	E
2. Description of Trauma Center	
Description of the Trauma Center	
2.1 The trauma program is empowered to address issues that involve multiple disciplines.	E
2.2 Center provides initial resuscitation of the trauma patient and immediate intervention to control hemorrhage and to assure maximum stabilization prior to referral to an appropriate higher level of care.	E
Trauma Leadership	
Trauma Medical Director	
2.3 The trauma program has a Trauma Medical Director with the authority and administrative support to lead the program.	E
2.4 The Trauma Medical Director is current in Advanced Trauma Life Support (ATLS).	E
2.5 The Trauma Medical Director maintains personal involvement in patient care, staff education, and professional organizations.	E
2.6 Trauma team providers who are reviewed by the Trauma Medical Director and credentialed by the medical staff and governing board.	E
2.7 The Trauma Medical Director is responsible for developing and directing the quality improvement program.	E
2.8 The Trauma Medical Director is accountable for all trauma care and exercises administrative authority for the trauma program.	E
2.9 The Trauma Medical Director participates in the internal trauma Quality Improvement (QI) process by attending at least 50% of meetings.	E

Trauma Program Manager	
2.10 The center has a Trauma Program Manager. The Trauma Program Manager shows evidence of educational preparation and clinical experience caring for injured patients.	E
2.11 The Trauma Program Manager is responsible for the use of trauma registry data for quality improvement and trauma education.	E
2.12 The Trauma Program Manager works with the Trauma Medical Director to address the multidisciplinary needs of the trauma program.	E
2.13 The Trauma Program Manager serves as a liaison to local Emergency Medical Services (EMS) agencies and accepting centers.	E
3. Clinical Functions	
3.1 The criteria for activation must be clearly defined by the center.	D
3.2 The center is staffed to ensure immediate and appropriate care to trauma patients during hours of operation.	E
3.3 The center has written protocols to determine which types of patients are admitted and which are transferred.	E
3.4 The center must be the local trauma authority and assume the responsibility for providing training for prehospital and hospital-based providers.	D
3.5 The center has established protocols to ensure immediate and appropriate care of the adult and pediatric trauma patient.	E
Trauma Team	
3.6 The center's policy and procedures describe the role of all personnel on the Trauma Team.	E
3.7 At a minimum, the Trauma Team consists of:	
a. A physician or midlevel provider; and	E
b. A registered nurse or licensed practical nurse.	E
3.8 Trauma team members participate in multi-disciplinary trauma committee and the quality improvement process.	E
3.9 Trauma Team physicians and midlevel providers are credentialed by the medical staff and governing board.	E
Emergency Department (ED)	
3.10 During hours of operation, the center has a health care provider(s) (MD, DO, FNP, PA) available. The provider must be on-site within 30 minutes of patient arrival with an 80% achievement rate.	E
3.11 The center is staffed by RN/LPNs during hours of operation at levels necessary to meet the needs of the trauma patient.	E
3.12 Trauma providers must have documentation of training and knowledge of care for the trauma patient.	E

3.13 Where midlevel providers (Nurse Practitioners or Physician Assistants) staff the emergency department (ED), there must be documentation of training and knowledge of care for the trauma patient.	E
Collaborative Clinical Services	
Radiology	
3.14 The center has a written policy to delineate the availability of CT services to the trauma patient.	E
Other Surgical Specialists	
3.15 The center has a posted list of specialists who are promptly available from inside and outside of the center.	E
5. Interhospital Transfer	
5.1 The decision to transfer an injured patient rests with the attending provider and is based solely on the needs of the patient.	E
5.2 There are transfer agreements in place with higher level trauma centers as well as specialty referral centers (e.g. burn, pediatric, and rehabilitation centers).	E
5.3 A mechanism for direct provider-to-provider contact is present for arranging patient transfer.	E
5.4 Centers that refer burn patients to a designated burn center must have in place written transfer protocols with a referral burn center.	D
5.5 The center must have guidelines addressing which patients (including pediatric patients) should be transferred and the safe transport of those patients.	E
6. Performance Improvement and Patient Safety (PIPS)	
6.1 The center must have a PIPS program to ensure optimal care and continuous improvement of care. Can be fulfilled by participation in Regional QI case reviews.	E
6.2 The PIPS program is supported by a reliable method of data collection that consistently gathers valid and objective information necessary to identify opportunities for improvement.	E
6.3 The process of analysis occurs at regular intervals to meet the needs of the program.	E
6.4 The center is able to separately identify the trauma patient population for review.	E
6.5 The PIPS program must have audit filters to review and improve pediatric and adult patient care.	D
6.6 The center uses the registry to support its PIPS program.	E
6.7 Deaths are categorized as unanticipated mortality with opportunity for improvement, anticipated mortality with opportunity for improvement, or mortality without opportunity for improvement.	E
6.8 The center's PIPS program must work with receiving facilities to provide and obtain feedback on all transferred patients.	E
6.9 The center must perform a PIPS review of all admissions and transfers.	E

6.10 The results of analysis are documented and define corrective strategies.	D
6.11 The center's registered nursing staff must participate in the internal trauma QI program.	D
6.12 The center must have a system to notify dispatch and EMS agencies when on divert status.	E
6.13 The center has a functioning internal QI process that:	
a. Has clearly stated goals and objectives;	E
b. Develops standards of care;	E
c. Has a process to train trauma providers;	D
d. Has explicit quality indicators and filters;	E
e. Has a peer review process that includes prehospital providers;	E
f. Has a method for comparing patient outcomes with computed survival probability; and	E
g. Evaluates autopsy information on all trauma deaths.	D
8. Time Sensitive Emergency (TSE) Registry	
8.1 Trauma center's program specific data are collected, analyzed, and used to support the internal PIPS program.	E
8.2 Data is submitted to the Idaho TSE Registry (Idaho Trauma Registry). At least 80% of cases must be entered into the registry within 180 days of treatment.	E
8.3 There is a process in place to verify that TSE Registry data is accurate and valid.	E
8.4 The trauma program ensures that registry data confidentiality measures are in place.	E
9. Outreach & Education	
9.1 There is evidence that the center supports public education and awareness.	E
10. Prevention	
10.1 The center participates in traumatic injury prevention.	E
10.2 The center bases injury prevention activities on local data.	D
11. Disaster Planning and Management	
11.1 The center has a disaster plan described in its Disaster Manual.	E

Level I & II Pediatric Trauma Center

Designation Criteria for Level I and II Pediatric Trauma Center

Criteria for designation of Level I & II pediatric trauma centers are based upon *Resources for Optimal Care of the Injured Patient, COT/American College of Surgeons, 2006*. Criteria to verify the services and systems are in place to ensure optimal care of the trauma patient are defined in that document. The following elements must be met for designation as a Level I or II pediatric trauma center in Idaho.

Criteria Element	Level
10.1 Pediatric trauma centers meet the same resource requirements as adult trauma centers in addition to pediatric resource requirements.	I, II
10.2 A Level I pediatric trauma center annually admits 200 or more injured children younger than 15 years.	I
10.3 A Level II pediatric trauma center annually admits 100 or more injured children younger than 15 years.	II
10.4 A pediatric trauma center has a pediatric trauma program manager or coordinator.	I, II
10.5 A pediatric trauma center has a pediatric trauma registrar.	I, II
10.6 The pediatric trauma program manager or coordinator is dedicated to the pediatric trauma service.	I
10.7 A pediatric trauma center has a pediatric trauma PIPS program.	I, II
10.8 A pediatric trauma center has all of the following programs: pediatric rehabilitation; child life and family support programs; pediatric social work and child protective services; pediatric injury prevention and community outreach programs; and pediatric trauma education programs.	I, II
10.9 A pediatric trauma center has identifiable pediatric trauma research.	I
10.10 A Level I pediatric trauma center has at least two Surgeons, board-certified or board-eligible in pediatric surgery by the American Board of Surgery.	I
10.11 A Level I pediatric trauma center has at least one board-certified or board-eligible orthopedic Surgeon who has had pediatric fellowship training.	I
10.12 A Level I pediatric trauma center has at least one board-certified or board-eligible neurosurgeon who has had pediatric fellowship training.	I
10.13 A Level I pediatric trauma center has at least one additional board-certified or board-eligible orthopedic Surgeon with demonstrated skills and interest in the care of pediatric trauma patients.	I
10.14 A Level I pediatric trauma center has at least one additional board-certified or board-eligible neurosurgeon with demonstrated skills and interest in the care of pediatric trauma patients.	I
10.15 A Level I pediatric trauma center has at least two physicians who are board-certified or board-eligible in pediatric critical care medicine (pediatric or surgical).	I
10.16 A Level I pediatric trauma center has at least two physicians board-certified or board-eligible in pediatric emergency medicine.	I
10.17 Individuals who provide pediatric care in the pediatric ICU are credentialed by the hospital to provide pediatric trauma care in their respective trauma areas.	I, II

10.18 Individuals who provide pediatric care in the pediatric area of the ED are credentialed by the hospital to provide pediatric care in the ED.	I, II
10.19 A Level II pediatric trauma center has at least one surgeon who is board-certified or board-eligible in pediatric surgery.	II
10.20 A Level II pediatric trauma center has at least one additional board-certified or board-eligible orthopedic surgeon with interests and skills in pediatric surgery.	II
10.21 A Level II pediatric trauma center has at least one board-certified or board-eligible neurosurgeon with interests and skills in pediatric surgery.	II
10.22 The pediatric trauma medical director is board-certified or board-eligible in general surgery.	I, II
10.23 The pediatric trauma medical director is board-certified or board-eligible in pediatric surgery.	I
10.24 There are non-pediatric-trained Surgeons serving on the pediatric panel with proper qualifications:	I, II
a. Credentialed by the hospital to provide pediatric trauma care;	
b. Members of the adult trauma panel;	
c. The pediatric trauma medical director has agreed to their having sufficient training and experience in pediatric trauma care; and	
d. Their performance has been reviewed by the pediatric PIPS program.	
10.25 Trauma surgeon attendance in the ED for the highest level of activations is documented to be greater than 80%.	I, II
10.26 There is a mechanism for documenting Surgeon presence in the operating room.	I, II
10.27 The program offers specialty-specific pediatric education for the specialists.	I, II
10.28 There is a pediatric trauma service led by the trauma medical director.	I, II
10.29 All hospitals seeking verification as an adult and pediatric trauma center meet criteria for the verification level sought in each type of center.	I, II
10.30 Trauma Surgeons in adult trauma centers that admit 100 or more injured children annually are credentialed for pediatric trauma care by the hospital's credentialing body.	I, II
10.31 The adult trauma center that admits 100 or more injured children annually has all of the following: a pediatric emergency department area, a pediatric intensive care area, appropriate resuscitation equipment, and a pediatric-specific trauma PIPS program.	I, II
10.32 The adult trauma center that admits fewer than 100 injured children annually reviews care of injured children through the PIPS program.	I, II
10.33 There is a multidisciplinary peer review committee with participation by the trauma medical director or designee and representatives from pediatric/general surgery, orthopedic surgery, neurosurgery, emergency medicine, critical care medicine, and anesthesia that reviews selected deaths, complications, and sentinel events to identify issues and appropriate responses.	I, II
10.34 Attendance by the required representatives to at least 50% of the multidisciplinary peer review meetings is documented.	I, II
10.35 The pediatric trauma medical director and the liaisons from neurosurgery, orthopedic surgery, emergency medicine, and critical care medicine have adequate pediatric trauma CME.	I, II

Level I Stroke Center (Comprehensive)

Designation Criteria for Level I Stroke Center

1. Personnel

1.1 The center has a stroke care coordinator that is at minimum an RN.

1.2 The center has a stroke medical director who is a neuro-specialist (i.e. neurosurgeon, neurologist, or neuro-intensivist) with extensive experience in neurology and

1.3 The center has an acute stroke team (i.e. the team of physicians and nurses that responds to assess and treat acute stroke), as designated by the stroke center medical director, on-site 24/7 within 15 minutes of activation with an 80% achievement rate.

1.4 The center has a defined stroke leadership team that is responsible for education, protocol, Quality Assurance (QA), program development, outreach education, etc.

1.5 The center has a neurologist available 24/7 who is on-site within 15 minutes of stroke team activation, or who is available via telemedicine within 15 minutes of stroke team activation and on-site within 45 minutes if needed with an 80% achievement rate.

1.6 The center has a board-certified vascular neurologist; or the center has an ABPN-certified neurologist who has completed 12 months of formal training in vascular neurology, or who devotes a minimum of 25% of practice time to vascular neurology.

1.7 The center has a vascular surgeon available 24/7 that is on-site within 30 minutes when requested with an 80% achievement rate.

1.8 The center has interventional physicians available 24/7 that are on-site within 30 minutes when requested with an 80% achievement rate.

1.9 The center has critical care or neurocritical care physicians available 24/7 that are on-site within 30 minutes when requested with an 80% achievement rate.

1.10 The center has physical medicine and rehabilitation physicians.

1.11 The center has a neurosurgeon available 24/7 that is on-site within 30 minutes when requested with an 80% achievement rate.

1.12 The center has organizational and administrative support.

1.13 The center has clinical emergency department (ED) personnel trained in diagnosing and treating acute stroke on-site 24/7.

2. Training and Education

2.1 Members of the stroke leadership team have a minimum of 8 hours of annual education on stroke diagnosis and treatment to ensure competence.

2.2 All center staff are educated annually on the signs and symptoms of stroke and the process to activate the stroke team.

2.3 The stroke unit’s clinical staff demonstrates evidence of initial and ongoing training in the care of acute stroke patients. Stroke units may be defined and implemented in a variety of ways. The stroke unit does not have to be a specific enclosed area, but must be a specified unit to which most stroke patients are admitted.

3. Stroke Services

3.1 The center has neuroradiology services available 24/7.
3.2 The center has diagnostic radiology services available 24/7.
3.3 The center has:
a. an intensive care unit (ICU);
b. physical therapy;
c. occupational therapy; and
d. speech therapy.
3.4 The center has staff stroke nurses available 24/7.
3.5 The center has a CT tech on-site 24/7.
3.6 The center performs CT or MRI within 25 minutes of patient arrival at the center 24/7 with an 80% achievement rate (excluding transfers with appropriate imaging already completed).
3.7 The center has staff on-site or via telemedicine to read and report CT/MRI within 45 minutes of patient arrival at the center 24/7 with an 80% achievement rate (excluding transfers with appropriate imaging already completed).
3.8 The center has MRI with diffusion available 24/7.
3.9 The center has MR angiography/MR venography available 24/7.
3.10 The center has CT angiography available 24/7.
3.11 The center has digital subtraction cerebral angiography available 24/7.
3.12 The center has transcranial doppler available 24/7.
3.13 The center has transesophageal echo.
3.14 The center has carotid artery duplex ultrasound imaging.
3.15 The center has EKG and chest x-ray capability 24/7.
3.16 The center has laboratory or point-of-care testing 24/7 with results in 45 minutes or less with a 90% achievement rate.
3.17 The center has Food and Drug Administration (FDA)-approved IV thrombolytic therapy for stroke available 24/7.
3.18 The center has Intra-Arterial (IA) recanalization capability available 24/7.
3.19 The center can perform carotid endarterectomy 24/7.
3.20 The center can provide surgical treatment of intracranial cerebrovascular disease 24/7.
3.21 The center can provide placement of intracranial pressure transducer 24/7.
3.22 The center can provide placement of ventriculostomy 24/7.



3.23 The center can perform endovascular treatment of intracranial aneurysms/arterial venous malformations 24/7.
3.24 The center can perform endovascular treatment of vasospasm 24/7.
3.25 The center can perform stenting and/or angioplasty of extracranial vessels 24/7 or has a referral protocol in place.
3.26 The center can perform stenting and/or angioplasty of intracranial vessels 24/7 or has a referral protocol in place.
3.27 The center has operating room coverage 24/7 and is ready within 30 minutes of notification with an 80% achievement rate.
3.28 The center has interventional services available 24/7 on-site within 30 minutes of notification with an 80% achievement rate.
3.29 The center has post discharge stroke services.
3.30 The center must have written stroke protocols, order sets, procedures, and/or algorithms for assessment and treatment of ischemic and hemorrhagic strokes which include:
a. stroke team activation process;
b. initial diagnostic tests;
c. administration of medication; and
d. swallowing assessment prior to oral intake.
3.31 The center’s pharmacy is adequately staffed by qualified personnel to ensure effective medication management services including emergency services available 24/7.
3.32 The center has transfer protocols or guidelines specific to stroke patients; however there should be no reason to transfer stroke patients from a Level I Stroke Center other than in cases of disaster, equipment failure, severe staffing shortage, etc.
3.33 The center coordinates with Emergency Medical Services (EMS) on stroke care and transport policy and procedures, system activation, training, data collection and quality improvement, and unavailability of services.
3.34 The center provides annual public education on stroke-related topics such as prevention, risk factors, signs and symptoms, and the importance of getting treatment right away and calling 911.
3.35 The center provides stroke education to stroke patients and their caregivers.

4. Minimum Requirements

4.1 The center cares for a minimum of 12 non-traumatic subarachnoid hemorrhage (SAH) patients per year.
4.2 The center performs a minimum of 15 clippings or endovascular procedures per year for aneurysmal disease.

5. Performance Measurement and Quality Improvement

5.1 The center participates in the Idaho TSE Registry. At least 80% of cases are submitted within 180 days of treatment.
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5.2 The center measures performance on at least two relevant patient care benchmarks each year.
5.3 The center participates in their Regional TSE Committee.
5.4 The center must have a PIPS program to ensure optimal care and continuous improvement of care.
5.5 The PIPS program is supported by a reliable method of data collection that consistently gathers valid and objective information necessary to identify opportunities for improvement.
5.6 System and process issues (such as documentation and communication), clinical care issues, and transfer decisions must be reviewed by the PIPS program.
5.7 The stroke program must use clinical practice guidelines, protocols, and algorithms derived from evidence-based validation resources to achieve benchmark goals.
5.8 All process and outcome measures must be documented in a written PIPS plan and updated annually.
5.9 The process of analysis occurs at regular intervals to meet the needs of the program.
5.10 The process demonstrates problem resolution (loop closure).
5.11 The center is able to separately identify the stroke patient population for review.
5.12 The PIPS program must have audit filters to review and improve patient care.
5.13 The center uses data from internal or external stroke registries to support its PIPS program.
5.14 The PIPS program has defined conditions requiring the surgeon's/interventionalist's immediate hospital presence if available.
5.15 The center's PIPS program must work with receiving and transferring facilities to provide and obtain feedback on all transferred patients.
5.16 The PIPS program evaluates OR availability and delays.
5.17 If available, delays in surgeon/interventionalist response time must be monitored and reviewed for cause of delay and opportunities for improvement. Corrective actions must be documented.
5.18 In centers with Intensive Care Units (ICU), transfer to a higher level of care must be reviewed to determine the rationale for transfer, adverse outcomes, and opportunities for improvement.
5.19 If the center has an ICU, the PIPS program must document that timely and appropriate care and coverage are being provided.
5.20 The center must perform a PIPS review of all stroke admissions and transfers.
5.21 The results of analysis are documented and define corrective strategies.
5.22 The center must have a system to notify dispatch and Emergency Medical Services (EMS) agencies when on divert status.

Level II Stroke Center (Primary)

Designation Criteria for Level II Stroke Center

1. Personnel

1.1 The center has a stroke care coordinator. The stroke care coordinator must at least an RN.

1.2 The center has a stroke medical director. The medical director must be a physician; a neurologist or neurosurgeon is preferred but not required. The director may oversee more than one center's stroke program within the same hospital system or corporate structure as long as the director is involved in program decision-making at each hospital.

1.3 The center has a defined stroke leadership team. At a minimum, the team consists of a physician and a registered nurse (RN).

1.4 The center has organizational and administrative support.

1.5 The center has clinical personnel trained in diagnosing and treating acute stroke on-site 24/7.

2. Training and Education

2.1 Members of the stroke leadership team have a minimum of 8 hours of annual education on stroke diagnosis and treatment to ensure competence.

2.2 All center staff are educated annually on the signs and symptoms of stroke and the process to activate the stroke team.

2.3 The stroke unit's clinical staff demonstrates evidence of initial and ongoing training in the care of acute stroke patients. Stroke units may be defined and implemented in a variety of ways. The stroke unit does not have to be a specific enclosed area, but must be a specified unit to which most stroke patients are admitted.

3. Stroke Services

3.1 The center has a neurologist or physician experienced in cerebrovascular care available on-site or via telemedicine/telephone within 20 minutes of patient's arrival 24/7 with an 80% achievement rate.

3.2 The center has:

- a. an intensive care unit (ICU);
- b. physical therapy;
- c. occupational therapy; and
- d. speech therapy.

3.3 The center has a CT tech on-site 24/7.

3.4 The center performs CT or MRI within 25 minutes of patient's arrival 24/7 with an 80% achievement rate.

3.5 The center has staff on-site or via telemedicine to read and report CT or MRI results within 45 minutes of patient's arrival 24/7 with an 80% achievement rate.
3.6 The center has intracranial and extracranial vascular imaging.
3.7 The center has EKG and chest x-ray capability 24/7.
3.8 The center has laboratory or point-of-care testing 24/7 with results in 45 minutes or less with an 80% achievement rate.
3.9 The center has Food and Drug Administration (FDA)-approved IV thrombolytic therapy for stroke available 24/7.
3.10 If the center performs mechanical thrombectomy, it will collect data on the following items:
a. Arrival at interventional hospital to groin puncture.
b. Symptomatic intracranial hemorrhage within 36 hours of the procedure.
c. Mortality within 72 hours of the procedure (all cause).
3.11 The center must have written stroke protocols, order sets, procedures, and/or algorithms for assessment and treatment of ischemic and hemorrhagic strokes which include:
a. stroke protocol activation process;
b. initial diagnostic tests;
c. administration of medication; and
d. swallowing assessment prior to oral intake.
3.12 The center's pharmacy is adequately staffed by qualified personnel to ensure effective medication management services including emergency services available 24/7.
3.13 The center has transfer protocols or guidelines that include criteria specific to transferring stroke patients including hemorrhagic stroke patients, stroke patients outside of the IV t-PA treatment window, et cetera.
3.14 The center must have a written transfer protocol with at least one Level I Stroke Center. The transfer protocol must include communication with and feedback from the receiving center.
3.15 The center coordinates with Emergency Medical Services (EMS) on stroke care and transport policy and procedures, system activation, training, data collection, and quality improvement.
3.16 The center provides annual public education on stroke-related topics such as prevention, risk factors, signs and symptoms, and the importance of getting treatment right away and calling 911.
3.17 The center provides stroke education to stroke patients and their caregivers.
4. Minimum Requirements
4.1 The stroke program identifies clinical practice guidelines that are used to facilitate evidence-based clinical care.
4.2 The stroke program has an organized process, or a designated response team, for rapid evaluation and treatment of inpatients that develop stroke symptoms.

4.3 The stroke program will collect data on door-in-door-out times for patients transferred for endovascular therapy and hemorrhagic strokes.

4.4 NIH Stroke Score is used in the emergency department (ED) and the inpatient setting, as a way to quantify neurological deficits.

5. Performance Measurement and Quality Improvement

5.1 The center participates in the Idaho TSE Registry. At least 80% of cases are submitted within 180 days of treatment.

5.2 The center meets the benchmark of door-to-needle time in less than 60 minutes with a 75% achievement rate.

5.3 The center participates in their Regional TSE Committee.

5.4 The center must have a PIPS program to ensure optimal care and continuous improvement of care.

5.5 The PIPS program is supported by a reliable method of data collection that consistently gathers valid and objective information necessary to identify opportunities for improvement.

5.6 System and process issues (such as documentation and communication), clinical care issues, and transfer decisions must be reviewed by the PIPS program.

5.7 The stroke program must use clinical practice guidelines, protocols, and algorithms derived from evidence-based validation resources to achieve benchmark goals.

5.8 All process and outcome measures must be documented in a written PIPS plan and updated annually.

5.9 The process of analysis occurs at regular intervals to meet the needs of the program.

5.10 The process demonstrates problem resolution (loop closure).

5.11 The center is able to separately identify the stroke patient population for review.

5.12 The PIPS program must have audit filters to review and improve patient care.

5.13 The center uses data from internal or external stroke registries to support its PIPS program.

5.14 The PIPS program has defined conditions requiring the surgeon's/interventionalist's immediate hospital presence if available.

5.15 The center's PIPS program must work with receiving and transferring facilities to provide and obtain feedback on all transferred patients.

5.16 The PIPS program evaluates OR availability and delays.

5.17 If available, delays in surgeon/interventionalist response time must be monitored and reviewed for cause of delay and opportunities for improvement. Corrective actions must be documented.

5.18 In centers with Intensive Care Units (ICU), transfers to a higher level of care must be reviewed to determine the rationale for transfer, adverse outcomes, and opportunities for improvement.

5.19 If the center has an ICU, the PIPS program must document that timely and appropriate care and coverage are being provided.

5.20 The center must perform a PIPS review of all stroke admissions and transfers.

5.21 The results of analysis are documented and define corrective strategies.

5.22 The center must have a system to notify dispatch and Emergency Medical Services (EMS) agencies when on divert status.

Designation Criteria for Level III Stroke Center

1. Personnel
1.1 The center has a stroke care coordinator (may use a system coordinator).
1.2 The center has a stroke medical director (may use a system medical director). The medical director does not need to be board-certified in neurology or neurosurgery, but must have sufficient knowledge of cerebrovascular disease to provide administrative leadership, clinical guidance, and input to the program.
1.3 The center has a defined stroke leadership team. The stroke leadership team is responsible for setting protocol and procedures, for Quality Improvement (QI)/Performance Improvement (PI), and for setting educational requirements.
1.4 The center has organizational and administrative support.
2. Training and Education
2.1 Members of the stroke response team have annual education in stroke diagnosis and treatment to ensure competence.
2.2 The stroke medical director receives at least 4 hours annually of education related to the care of stroke patients.
2.3 All center staff are educated annually on the signs and symptoms of stroke and the process to activate the stroke team.
3. Stroke Services
3.1 The center has a neurologist or physician experienced in cerebrovascular care available 24/7 on-site or via telemedicine/telephone consult within 20 minutes of patient's arrival with an 80% achievement rate.
3.2 The center has a CT tech available 24/7.
3.3 The center has staff on-site or via telemedicine or telephone to read and report CT results within 45 minutes of patient's arrival 24/7 with an 80% achievement rate.
3.4 The center has EKG and chest x-ray capability 24/7.
3.5 The center has laboratory or point-of-care testing 24/7 with results in 45 minutes or less with an 80% achievement rate.
3.6 The center has Food and Drug Administration (FDA)-approved IV thrombolytic therapy for stroke available 24/7.
3.7 The center must have written stroke protocols, order sets, procedures, and/or algorithms for assessment and treatment of ischemic and hemorrhagic strokes which include:
a. stroke protocol activation process;
b. initial diagnostic tests;
c. administration of medication (including consultation with a neurologist or with a Level I or II Stroke Center); and
d. swallowing assessment prior to oral intake.

3.8 The center has transfer protocols that include criteria specific to transferring stroke patients including hemorrhagic stroke patients, stroke patients outside of the IV t-PA treatment window, etc.

3.9 The center must have a written transfer protocol with at least one Level I Stroke Center and one Level II Stroke Center. The transfer protocol must include communication with and feedback from the receiving center.

3.10 The center coordinates with Emergency Medical Services (EMS) on stroke care and transport policy and procedures, system activation, training, data collection, and quality improvement.

3.11 The center provides annual public education on stroke-related topics such as prevention, risk factors, signs and symptoms, and the importance of getting treatment right away and calling 911.

3.12 The center provides stroke education to stroke patients and their caregivers.

5. Performance Measurement and Quality Improvement

5.1 The center participates in the Idaho TSE Registry. At least 80% of cases are submitted within 180 days of treatment.

5.2 Door-to-needle time under 60 minutes with a 50% achievement rate.

5.3 The center participates in their Regional TSE Committee.

5.4 The center must have a PIPS program to ensure optimal care and continuous improvement of care.

5.5 The PIPS program is supported by a reliable method of data collection that consistently gathers valid and objective information necessary to identify opportunities for improvement.

5.6 System and process issues (such as documentation and communication), clinical care issues, and transfer decisions must be reviewed by the PIPS program.

5.7 The stroke program must use clinical practice guidelines, protocols, and algorithms derived from evidence-based validation resources to achieve benchmark goals.

5.8 All process and outcome measures must be documented in a written PIPS plan and updated annually.

5.9 The process of analysis occurs at regular intervals to meet the needs of the program.

5.10 The process demonstrates problem resolution (loop closure).

5.11 The center is able to separately identify the stroke patient population for review.

5.12 The PIPS program must have audit filters to review and improve patient care.

5.13 The center uses data from internal or external stroke registries to support its PIPS program.

5.14 The center's PIPS program must work with receiving and transferring facilities to provide and obtain feedback on all transferred patients.

5.15 The center must perform a PIPS review of all stroke admissions and transfers.

5.16 The results of analysis are documented and define corrective strategies.

5.17 The center must have a system to notify dispatch and Emergency Medical Services (EMS) agencies when on divert status.

Designation Criteria for Level I STEMI Center

1. Personnel
1.1 The center has organizational and administrative support for the program.
1.2 The center has a cardiac care coordinator.
1.3 The center has a defined rapid response team that responds to cardiac emergencies within the facility.
1.4 The center has a cardiac care medical director that is board-certified in cardiology.
1.5 The center has physicians in the emergency department (ED) 24/7 who are board-certified or board-eligible in emergency medicine, or physicians board-certified in a specialty and practicing emergency medicine as their primary practice with special competence in cardiac care.
1.6 The center has an interventional cardiologist on-site within 30 minutes of cardiac care team activation with an achievement rate of 80%.
1.7 The center has cardiac catheterization (cath) lab staff on-site within 30 minutes of cardiac care team activation with an achievement rate of 80%.
2. Training and Education
2.1 The physicians, midlevel providers, and registered nurses (RNs) on the cardiac care team are current in Advanced Cardiac Life Support (ACLS) or equivalent (or Board-Certified/Board-Eligible emergency medicine physician).
2.2 All of the center's ED RNs are current in ACLS or equivalent.
2.3 All of the center's staff must complete annual education on signs and symptoms of Acute Coronary Syndrome (ACS).
2.4 Interventional cardiologists who perform cardiac catheterizations must have a minimum of 45 hours of interventional continuing medical education (CME) every three years.
2.5 The cardiac care coordinator must have a minimum of 18 hours of continuing education in cardiac care every three years.
2.6 RNs on the cardiac care team complete annual education or training in identifying dysrhythmias, symptoms of ACS, and current American Heart Association (AHA) ACS guidelines.
2.7 The center offers tobacco cessation, nutrition, and other heart-healthy education for its employees and the community at least annually.
2.8 The center provides annual public education on cardiovascular disease prevention, the signs and symptoms of heart attack, and the importance of learning CPR and calling 911 in cardiac emergencies.

2.9 The center provides assistance with training and clinical education for Emergency Medical Services (EMS) in coordination with the EMS Medical Directors, as needed and upon request (e.g. reading electrocardiograms [ECG/EKG] for STEMI patients, appropriate activation of the cardiac care team, etc.).

3. STEMI Services

3.1 The center has diagnostic and interventional cardiac catheterization available 24/7.

3.2 The center has laboratory or point-of-care testing available 24/7.

3.3 The center's pharmacy is adequately staffed by qualified personnel to ensure effective medication management services 24/7.

3.4 The center has Food and Drug Administration (FDA)-approved fibrinolytic therapy available 24/7.

3.5 The center's post cardiopulmonary arrest care protocols are based on current AHA guidelines.

3.6 The center has cardiac surgery or a transfer protocol with cardiac surgery hospital via critical care ground or air.

3.7 The center has an intensive or critical care unit.

3.8 The center has protocols for activating the cardiac care team for patients who arrive via EMS and patients who "walk-in".

3.9 The center has protocols for: ACS, STEMI, triage for "walk-ins" presenting with symptoms of ACS, fibrinolytic therapy, initiation of post arrest care based on current AHA guidelines, and transfer guidelines.

3.10 The center has written protocols with regional Level II STEMI Center(s) to accept all STEMI referrals.

3.11 The center has a policy for referral to cardiac rehabilitation services.

3.12 The center coordinates with local Emergency Medical Services (EMS) agencies on cardiac care, transport policies and procedures, training, and quality improvement.

3.13 The center has a no-divert policy for all patients who meet cardiac care team activation criteria and a backup plan for situations when the hospital's cardiac care resources are temporarily unavailable.

4. Minimum Requirements

4.1 The center must have performed a minimum of 36 percutaneous coronary intervention (PCI) procedures for STEMI during the most recent rolling 12-month period.

5. Performance Measurement and Quality Improvement

5.1 The center must participate in Idaho's TSE Registry. At least 80% of cases are entered into the TSE Registry within 180 days of treatment. Participation in the National Cardiovascular Registry's ACTION Registry-Get with the Guidelines and/or CARES is recommended but not required.

5.2 The center achieves door-to-balloon time in less than 90 minutes in 85% of cases.

5.3 The center participates in their Regional TSE Committee.

5.4 The center must have a PIPS program to ensure optimal care and continuous improvement of care.
5.5 The PIPS program is supported by a reliable method of data collection that consistently gathers valid and objective information necessary to identify opportunities for improvement.
5.6 System and process issues (such as documentation and communication), clinical care issues, and transfer decisions must be reviewed by the PIPS program.
5.7 The STEMI program must use clinical practice guidelines, protocols, and algorithms derived from evidence-based validation resources to achieve benchmark goals.
5.8 All process and outcome measures must be documented in a written PIPS plan and updated annually.
5.9 The process of analysis occurs at regular intervals to meet the needs of the program.
5.10 The process demonstrates problem resolution (loop closure).
5.11 The center is able to separately identify the STEMI patient population for review.
5.12 The PIPS program must have audit filters to review and improve pediatric and adult patient care.
5.13 The center uses data from internal or external STEMI registries to support its PIPS program.
5.14 The PIPS program has defined conditions requiring the cardiologist's immediate hospital presence if available.
5.15 The center's PIPS program must work with transferring facilities to provide feedback on all transferred patients.
5.16 The PIPS program evaluates cardiac catheterization lab availability and delays.
5.17 If available, delays in cardiologist response time must be monitored and reviewed for cause of delay and opportunities for improvement. Corrective actions must be documented.
5.18 In centers with Intensive Care Units (ICU), transfers to a higher level of care must be reviewed to determine the rationale for transfer, adverse outcomes, and opportunities for improvement.
5.19 If the center has an ICU, the PIPS program must document that timely and appropriate care and coverage are being provided.
5.20 The center must perform a PIPS review of all STEMI admissions and transfers.
5.21 The results of analysis are documented and define corrective strategies.
5.22 The center must have a system to notify dispatch and Emergency Medical Services (EMS) agencies when on divert status.

Designation Criteria for Level II STEMI Center

1. Personnel

1.1 The center has identified an individual responsible for coordination of cardiac care.

1.2 The center has a defined rapid response team that responds to cardiac emergencies within the facility.

1.3 The center has an Advanced Cardiac Life Support (ACLS)-certified physician who oversees cardiac care.

2. Training and Education

2.1 The physicians, midlevel providers, and registered nurses (RNs) on the cardiac care team are current in ACLS or equivalent.

2.2 All center emergency department (ED) RNs have current ACLS training or equivalent.

2.3 All center staff must complete annual education on the signs and symptoms of Acute Coronary Syndrome (ACS).

2.4 RNs on the cardiac care team complete annual education or training in identifying dysrhythmias, symptoms of ACS, and current American Heart Association (AHA) ACS guidelines.

2.5 The center offers tobacco cessation, nutrition, and other heart-healthy education for its employees and the community at least annually.

2.6 The center provides annual public education on cardiovascular disease prevention, the signs and symptoms of heart attack, and the importance of learning CPR and calling 911 in cardiac emergencies.

2.7 The center provides assistance with training and clinical education for Emergency Medical Services (EMS) in coordination with the EMS Medical Directors, as needed and upon request (e.g. reading electrocardiograms [ECG/EKG] for STEMI patients, appropriate activation of the cardiac care team, etc.).

3. STEMI Services

3.1 The center has laboratory or point-of-care testing available 24/7.

3.2 The center's pharmacy is adequately staffed by qualified personnel to ensure effective medication management services 24/7.

3.3 The center has Food and Drug Administration (FDA)-approved fibrinolytic therapy available 24/7.

3.4 The center's post cardiopulmonary arrest care protocols are based on current AHA guidelines.

3.5 The center provides resuscitation and stabilization of cardiac patients prior to transfer to a higher level of care 24/7.

3.6 The center has protocols for activating the cardiac care team for patients who arrive via EMS and patients who "walk-in".

3.7 The center has protocols for: ACS, STEMI, triage for "walk-ins" presenting with symptoms of ACS, fibrinolytic therapy, initiation of post arrest care based on current AHA guidelines, and transfer guidelines.

3.8 The center has transfer protocol in place for rapid transfer of patients requiring a higher level of care.

3.9 The center coordinates with local EMS agencies on cardiac care, transport policies and procedures, training, and quality improvement.

5. Performance Measurement and Quality Improvement

5.1 The center must participate in Idaho's TSE Registry. At least 80% of cases are entered into the TSE Registry within 180 days of treatment.

5.2 The center participates in their Regional TSE Committee.

5.3 The center must have a PIPS program to ensure optimal care and continuous improvement of care.

5.4 The PIPS program is supported by a reliable method of data collection that consistently gathers valid and objective information necessary to identify opportunities for improvement.

5.5 System and process issues (such as documentation and communication), clinical care issues, and transfer decisions must be reviewed by the PIPS program.

5.6 The STEMI program must use clinical practice guidelines, protocols, and algorithms derived from evidence-based validation resources to achieve benchmark goals.

5.7 All process and outcome measures must be documented in written PIPS plan and updated annually.

5.8 The process of analysis occurs at regular intervals to meet the needs of the program.

5.9 The process demonstrates problem resolution (loop closure).

5.10 The center is able to separately identify the STEMI patient population for review.

5.11 The PIPS program must have audit filters to review and improve patient care.

5.12 The center uses data from internal or external STEMI registries to support its PIPS program.

5.13 The center's PIPS program must work with receiving facilities to provide and obtain feedback on all transferred patients.

5.14 The center must perform a PIPS review of all STEMI admissions and transfers.

5.15 The results of analysis are documented and define corrective strategies.

5.16 The center must have a system to notify dispatch and Emergency Medical Services (EMS) agencies when on divert status.