



**IDAHO TIME SENSITIVE  
EMERGENCY SYSTEM**  
TRAUMA | STROKE | STEMI

# Level IV Trauma Center

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## Application & Resource Tool Kit

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IDAHO DEPARTMENT OF  
**HEALTH & WELFARE**

# Table of Contents

TSE Frequently Asked Questions	Page 3
Application Process	Page 5
Application:	Page 7
A. Hospital and Personnel Profile	Page 7
B. Certification Statement	Page 8
C. Pre-Survey Questionnaire	Page 9
Additional Resources	Page 32

# TSE Frequently Asked Questions

## Why a TSE program?

The 2014 Idaho Legislature approved and funded a plan to develop a statewide Time Sensitive Emergency (TSE) system of care that addresses three of the top five causes of deaths in Idaho: trauma, stroke, and heart attack. Studies show that organized systems of care improve patient outcomes, reduce the frequency of preventable death, and improve the quality of life of the patient.

## How does the TSE program work?

The Idaho Department of Health and Welfare provides oversight and administrative support for the day-to-day operation of the program.

A governor-appointed TSE Council made up of health care providers, EMS agencies, and administrators of hospitals representing both urban and rural populations is responsible for establishing Rules and Standards for the TSE system. The Council is the statewide governing authority of the system.

The state has been divided into six regions. Each of these has a Regional TSE Committee made up of EMS providers, hospital providers and administrators, and public health agencies. The regional committees will be the venue in which a wide variety of work is conducted such as education, technical assistance, coordination, and quality improvement. The Regional TSE Committees will have the ability to establish guidelines that best serve their specific community in addition to providing a feedback loop for EMS and hospital providers.

## What guiding principles are the foundation of the TSE system?

- Apply nationally accepted evidence-based practices to time sensitive emergencies;
- Ensure that standards are adaptable to all facilities wishing to participate;
- Ensure that designated centers institute a practiced, systematic approach to time sensitive emergencies;
- Reduce morbidity and mortality from time sensitive emergencies;
- Design an inclusive system for time sensitive emergencies;
- Participation is voluntary; and
- Data are collected and analyzed to measure the effectiveness of the system.

**How often does a center need to be verified?**

Every three years.

**How much does it cost to be verified and designated?**

Verification is done once every three years. The on-site survey fee is \$1,500 and must be submitted with the application. Designation is valid for three years. The designation fee may be paid in three annual payments of \$1,000 or in one payment of \$3,000.

**Whom do I contact if I have questions about the application process?**

**Idaho Time Sensitive Emergency Program**

P.O. Box 83720  
Boise, ID 83720-0036  
tse@dhw.idaho.gov  
<http://tse.idaho.gov/>

**Program Manager**

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**Administrative Assistant**

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(208) 334-4904

Please do not hesitate to contact us with any questions or concerns regarding the application process. We would be happy to help you in any way we can. We may also be able to direct you to additional resources to assist you in meeting these standards.

# Application Process

To apply for designation as a Level IV Trauma Center in Idaho **using the ACS (or another state) as the verifying agency:**

1. Print and complete the application. Submit one application per facility. A completed application includes:
  - A. Facility and Personnel Profile;
  - B. Certification Statement;
  - C. A copy of the pre-review questionnaire (PRQ) from the ACS; and
  - D. A copy of the ACS site review
2. Get the required signatures on the Certification Statement.
3. Put the application in a binder with labeled, tabbed dividers between each section: Profile, Certification, PRQ, and ACS site review.
4. Mail the completed application and year one designation fee (\$4,000) to:

[Make checks payable to: Bureau of EMS and Preparedness](#)

Bureau of EMS and Preparedness  
Time Sensitive Emergency Program  
P.O. Box 83720  
Boise, ID 83720-0036

Or for FedEx, UPS, etc.:  
2224 E. Old Penitentiary Road  
Boise, ID 83712

TSE Program staff will notify you within 10 business days of receipt of the application and confirm that the application is complete.

# Application Process

To apply for designation as a Level IV Trauma Center using the State of Idaho for verification:

1. Complete and print the application. Submit one application per facility. A completed application includes:
  - A. Facility and Personnel Profile;
  - B. Certification Statement;
  - C. Pre-Survey Questionnaire; and
  - D. Required Attachments
2. Obtain the required signatures on the Certification Statement.
3. Put the application in a binder with labeled, tabbed dividers between each section: Profile, Certification, PSQ (Pre-Survey Questionnaire), and Attachments.
4. Mail the completed application and on-site survey fee (\$1,500) to:  
[Make checks payable to: Bureau of EMS and Preparedness](#)

Bureau of EMS and Preparedness  
Time Sensitive Emergency Program  
P.O. Box 83720  
Boise, ID 83720-0036

Or for FedEx, UPS, etc.:  
2224 E. Old Penitentiary Road  
Boise, ID 83712

TSE Program staff will notify you within 10 business days of receipt of the application and confirm that the application is complete.

# Application for Level IV Trauma Center Designation

## A. Hospital and Personnel Profile

<b>Hospital Name:</b>		
Mailing Address:	City:	Zip:
Physical Address:	City:	Zip:
Phone:	County:	
<b>Application Contact and Title:</b>		
Phone:	E-Mail:	

<b>Hospital Administrator/Chief Executive Officer:</b>	
Phone:	E-Mail:
<b>Trauma Program Manager:</b>	
Phone:	E-Mail:
<b>Trauma Medical Director:</b>	
Phone:	E-Mail:
<b>Emergency Department Medical Director:</b>	
Phone:	E-Mail:
<b>Emergency Department Nursing Director:</b>	
Phone:	E-Mail:

## B. Certification Statement

I, \_\_\_\_\_ (CEO/COO), on behalf of \_\_\_\_\_ (hospital), voluntarily agree to participate in the Idaho Time Sensitive Emergency system as a Level IV Trauma Center. We will work with emergency medical services and other hospitals in our area to streamline triage and transport of trauma patients and participate in our Regional Time Sensitive Emergency Committee.

I certify that:

- A. The information and documentation provided in this application is true and accurate.
- B. The facility meets the State of Idaho criteria to be designated as a Level IV Trauma Center.
- C. We will participate in the Idaho TSE Registry; and
- D. We will notify the Time Sensitive Emergency Program Manager immediately if we are unable to provide the level of trauma service we have committed to in this application.

\_\_\_\_\_  
Chair, Governing Entity (Hospital Board)

\_\_\_\_\_  
Date

\_\_\_\_\_  
Chief Executive Officer

\_\_\_\_\_  
Date

\_\_\_\_\_  
Trauma Medical Director

\_\_\_\_\_  
Date

\_\_\_\_\_  
Trauma Program Manager

\_\_\_\_\_  
Date

## C. Pre-Survey Questionnaire

Answer every question. If you require additional space, please include a separate sheet. Once complete, print and sign the application (Certification Statement). Label all attachments and place them in the "Attachments" section. Do not hesitate to contact the TSE program staff if you have any questions regarding your application. (208) 334-4904

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

### 1. Trauma System

#### Time Sensitive Emergencies (TSE)

1.1 Is your staff involved in regional trauma system planning, development and operation?

Yes                      No

Explain:

#### Center Mission

1.2 Attach a copy of the current resolution supporting the trauma center from the medical staff (See sample on page 32). Label as "Attachment #1".

1.3 Attach a copy of the current resolution supporting the trauma center from the hospital board (See sample on page 33). Label as "Attachment #2".

1.4 Do you have sufficient infrastructure, staff, equipment, and support to the trauma program to provide adequate provision of care? Yes No

Explain:

## 2. Description of Trauma Center

### Description of the Trauma Center

2.1 Is your trauma program empowered to address issues that involve multiple disciplines?

Yes No

Explain:

2.2 Can you provide 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? Yes                  No

Explain:

### Trauma Leadership

#### **Trauma Medical Director**

2.3 Do you have a Trauma Medical Director with the authority and administrative support to lead the program (See sample on page 34)? Yes                  No

Attach a copy of the Trauma Medical Director job description. Label as "Attachment #3".

Explain:

2.4 Is your Trauma Medical Director current in ATLS? Yes No

2.5 Provide a copy of documents supporting the Trauma Medical Director’s personal involvement in patient care, staff education, and professional organizations? Label as “Attachment #4”.

2.6 Does your Trauma Medical Director work with midlevel providers to ensure appropriate orientation, credentialing, and skill maintenance? Yes No

Explain:

2.7 Is your Trauma Medical Director responsible for developing and directing the quality improvement program? Yes No

Explain:

2.8 Is your Trauma Medical Director accountable for all trauma care and does he/she exercise administrative authority for the trauma program? Yes No

Explain:

2.9 Does your Trauma Medical Director participate in the internal trauma QI process by attending at least 50% of meetings? Yes No

Explain:

### **Trauma Program Manager**

2.10 Do you have a Trauma Program Manager? Yes No

Does he or she show evidence of educational preparation and clinical experience caring for injured patients? Yes No

Explain:

2.11 Is your Trauma Program Manager responsible for the use of trauma registry data for quality improvement and trauma education (See sample on page 36)? Yes No

Attach a copy of the Trauma Program Manager job description. Label as "Attachment #5".

Explain:

2.12 Does your Trauma Program Manager work with your Trauma Medical Director to address the multidisciplinary needs of the trauma program? Yes No

Explain:

2.13 Does your Trauma Program Manager serve as a liaison to local EMS agencies and accepting centers? Yes No

This may be satisfied by participating in your Regional TSE Committee.

Explain:

### 3. Clinical Functions

3.1 Is the criteria for graded activation (priority level) clearly defined and continuously evaluated by the PIPS program (See page 38 for state recommendations)? Yes  No

Attach a copy of the criteria for graded activation. Label as "Attachment #6".

Explain:

3.2 Addressed on 3.1

3.3 Can you provide the necessary human and physical resources to properly administer acute care consistent with Level IV verification? Yes  No

Explain:

3.4 Do you have written protocols to determine which types of patients are admitted and which are transferred (See sample on page 39)? Yes  No

3.5 As the local trauma authority do you assume the responsibility for providing training for prehospital and hospital-based providers? Yes No

Explain:

3.6 Do you have established protocols to ensure immediate and appropriate care of the adult and pediatric trauma patient? Yes No

Trauma Team

3.7 Do you have defined criteria for all levels of Trauma Team activation (See sample on page 40)? Yes No

Is the criteria reviewed annually? Yes No

Attach Trauma Team activation criteria. Label as "Attachment #7".

3.8 Have all general surgeons, emergency providers, and midlevel providers on the Trauma Team completed ATLS at least once? Yes No

3.9 Is the Trauma Team fully assembled within 30 minutes of notification or patient arrival (whichever is shorter) with an 80% achievement rate.? Yes No

Do you have supporting documentation for a min. of 3 months? Label as "Attachment #8".

3.10 Do your Trauma Team members participate in PIPS and TPOPPC? Yes No

3.11 Are all Trauma Team physicians and midlevel providers credentialed by the medical staff and governing board? Yes No

### Emergency Department

3.12 Are your physicians or midlevel providers in the ED on patient arrival for the highest level of activation, provided there is adequate notification from the prehospital providers?

Yes No

Does the PIPS program demonstrate compliance (response time < 30 minutes) at least 80% of the time? Yes No

3.13. Do you have emergency coverage by a physician or midlevel provider 24/7?

Yes No

3.14 Is your ED adequately staffed and capable of performing resuscitation 24/7?

Yes No

3.15 Addressed in 3.8

3.16 Are your midlevel providers who participate in the initial evaluation of trauma patients current in ATLS?

Yes No

### Collaborative Clinical Services

#### **Radiology**

3.17 Do you have conventional radiology services (non-CT) available 24/7? Yes No

Do you have supporting documentation? Yes No

#### **Laboratory**

3.18 Do you provide laboratory services 24/7 for the standard analysis of blood, urine, and other body fluids, including microsampling when appropriate? Yes No

Do you have supporting documentation? Yes No

3.19 Is your blood bank capable of blood typing and cross-matching? Yes No  
Do you have supporting documentation? Yes No

3.20 Do you have a transfusion protocol developed collaboratively between the trauma service and the blood bank? Yes No  
Do you have supporting documentation? Yes No

### **Nutrition**

3.21 Do you have nutrition support services available? Yes No  
Do you have supporting documentation? Yes No

### **Social Services**

3.22 Do you have social services? Yes No  
Do you have supporting documentation? Yes No

3.23 Do you screen all trauma patients for alcohol use? Yes No  
Do you provide a brief intervention if appropriate? Yes No  
Do you have supporting documentation? Yes No

## **4. Prehospital Trauma Care**

4.1 Do you participate in prehospital care protocol development and the PIPS program? Yes No

Attach supporting documentation. Label as "Attachment #9".

## **5. Interhospital Transfer**

5.1 Is your decision to transfer an injured patient to a specialty care facility in an acute situation based solely on the needs of the patient? Yes No

Attach supporting documentation. Label as "Attachment #10".

5.2 Do you have transfer protocols in place with higher level trauma centers (See a sample on page 41)?

Yes No

Do you have transfer protocols in place with specialty referral centers (e.g. burn, pediatric, and rehabilitation centers)?

Yes No

5.3 Is there a mechanism for direct physician-to-physician contact for arranging patient transfer?

Yes No

Explain:

5.4 Addressed in 5.2

5.5 Do you have guidelines addressing which patients (including pediatric patients) should be transferred and the safe transport of those patients?

Yes No

Attach supporting documentation. Label as "Attachment #11".

## 6. PIPS

Visit the TSE website at <http://tse.idaho.gov/> for a downloadable copy of *Developing a PIPS Program*.

6.1 Do you have a PIPS program to ensure optimal care and continuous improvement of care?

Yes No

Explain:

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

Yes No

Explain:

6.3 Are system and process issues (such as documentation and communication), clinical care issues (including identification and treatment of immediate, life-threatening injuries), and transfer decisions reviewed by your PIPS program?

Yes No

Explain:

6.4 Does the trauma program use clinical practice guidelines, protocols, and algorithms derived from evidence-based validation resources to achieve benchmark goals? Yes No  
Explain:

6.5 Are all process and outcome measures documented in a written PIPS plan and updated annually? Yes No  
Explain:

6.6 Does your PIPS process of analysis occur at regular intervals to meet the needs of the program? Yes No  
Explain:

6.7 Does your PIPS process demonstrate problem resolution (loop closure)?

Yes

No

Explain:

6.8 Are you able to separately identify the trauma patient for review?

Yes

No

Explain:

6.9 Does your PIPS program have audit filters to review and improve pediatric and adult patient care?

Yes

No

Attach a list of the audit filters. Label as "Attachment #12".

6.10 Do you use the registry to support your PIPS program?

Yes

No

Explain:

6.11 Are deaths categorized as unanticipated mortality with opportunity for improvement, anticipated mortality with opportunity for improvement, or mortality without opportunity for improvement?

Yes

No

6.12 Does your PIPS program review the organ donation rate?

Yes

No

Explain:

**If you do not provide surgical services, skip to 6.15**

6.13 Does your PIPS program have defined conditions requiring the surgeon's immediate hospital presence?

Yes No

Explain:

6.14 Does your PIPS program ensure that the PACU has the necessary equipment to monitor and resuscitate patients (See list on page 46)?

Yes No

Explain:

6.15 Are all Trauma Team activations categorized by the priority of response and quantified by number and percentage?

Yes No

Explain:

6.16 Does your PIPS program work with receiving facilities to provide and obtain feedback on all transferred patients? Yes No

Explain:

**If you do not provide surgical services, skip to 6.20**

6.17 Does your PIPS program evaluate OR availability and delays when an available on-call team is used? Yes No

Explain:

6.18 Are delays in trauma surgeon response time monitored and reviewed for cause of delay and opportunities for improvement? Yes No

Explain:

6.19 Do you admit more than 10% of injured patients to nonsurgical services? Yes No  
If yes, does your PIPS program demonstrate the appropriateness of that practice? Yes No

Explain:

6.20 Does your PIPS program review the care of injured children? Yes No

Explain:

**If you do not have an ICU, skip to 6.23**

6.21 Are critical care transfers to a higher level of care reviewed to determine the rationale for transfer, adverse outcomes, and opportunities for improvement? Yes No

Explain:

6.22 Does your PIPS program document that timely and appropriate care and coverage are being provided in the ICU? Yes No

Explain:

6.23 Do you perform a PIPS review of all admissions and transfers? Yes No

Explain:

6.24 Are the results of analysis documented and do they define corrective strategies? Yes No

Explain:

6.25 Do you have a system to notify dispatch and EMS agencies when on divert status (See example on page 47)?

Yes No

Attach supporting documentation. Label as "Attachment #13".

## 7. TPOPPC

Visit the TSE website at <http://tse.idaho.gov/> for a downloadable copy of Developing a TPOPPC.

7.1 Do you have a TPOPPC? Yes No

Is the TPOPPC multidisciplinary? Yes No

Does the TPOPPC address, assess and correct global trauma and system issues? Yes No

Does the TPOPPC:

A. Handle process? Yes No

B. Meet regularly? Yes No

C. Take attendance? Yes No

D. Have minutes? Yes No

E. Work to correct all overall program deficiencies to continue to optimize patient care? Yes No

7.2 Does your TPOPPC require attendance for medical staff active in trauma resuscitation to review systemic and care provider issues, as well as propose improvements to care of the injured?

Yes No

Explain:

## 8. TSE Registry

8.1 Is trauma registry data collected, analyzed, and used to support the PIPS program?

Yes

No

Explain:

8.2 Is your trauma data submitted to the TSE Registry (Idaho Trauma Registry) within 180 days of treatment at least 80% of the time?

Yes

No

Attach a letter from the TSE Registry (Idaho Trauma Registry) supporting your answer. Label as "Attachment #14".

8.3 Do you have a process in place to verify that TSE Registry data is accurate and valid?

Yes

No

Explain:

8.4 Does the trauma program ensure that registry data confidentiality measures are in place.?

Yes No

Explain:

## 9. Outreach & Education

9.1 Are you engaged in public and professional education?

Yes No

Attach a list of public and professional educational opportunities that you have provided in the past 3 months. Label as "Attachment #15".

## 10. Prevention

10.1 Do you participate in injury prevention?

Yes No

Attach supporting documentation for all activities in the past 12 months. Label as "Attachment #16".

10.2 Do you have someone in a leadership position that has injury prevention as part of his or her job description (See example on page 49)?

Yes No

Attach a copy of the job description. Label as "Attachment #17."

10.3 Do you base injury prevention activities on local data?

Yes No

Explain:

## 11. Disaster Planning and Management

11.1 Do you meet the disaster-related National Incident Management System requirements (See requirements on page 50)? Yes      No

Attach supporting documentation. Label as "Attachment #18".

11.2 Is your Trauma Medical Director a member of your disaster committee? Yes      No

Attach supporting documentation. Label as "Attachment #19".

11.3 Do you participate in regional disaster management plans and exercises? Yes      No

Attach supporting documentation. Label as "Attachment #20".

11.4 Do you have a disaster plan described in your Disaster Manual (See *Creating a Disaster Plan* on page 55)? Yes      No

## 12. Organ Procurement

12.1 Do you have written protocols for declaration of brain death (See example on page 60)? Yes      No

Attach supporting documentation. Label as "Attachment #21".

# Sample Medical Staff Resolution

WHEREAS, traumatic injury is the leading cause of death for Idahoans between the ages of 1 and 44 years; and

WHEREAS, [HOSPITAL] strives to provide optimal trauma care; and

WHEREAS, treatment at a trauma hospital that participates in a standardized system of trauma care can significantly increase the chance of survival for victims of serious trauma; and

WHEREAS, participation in the Idaho Time Sensitive Emergency System will result in an organized and timely response to patients' needs, a more immediate determination of patients' definitive care requirements, improved patient care through the development of the hospital's performance improvement program and an assurance that those caring for trauma patients are educationally prepared:

THEREFORE; BE IT RESOLVED that the medical staff of [HOSPITAL] resolves to support the hospital's trauma program and to participate with initiatives in the furtherance of the standards published by the Idaho Time Sensitive Emergency System for Level V Trauma Centers.

IN WITNESS THEREOF, I have hereunto subscribed my name this [DAY] day of [MONTH], [YEAR].

---

Chief of Staff

# Sample Hospital Board Resolution

WHEREAS, traumatic injury is the leading cause of death for Idahoans between the ages of 1 and 44 years; and

WHEREAS, [HOSPITAL] strives to provide optimal trauma care; and

WHEREAS, treatment at a trauma hospital that participates in a standardized system of trauma care can significantly increase the chance of survival for victims of serious trauma; and

WHEREAS, participation in the Idaho Time Sensitive Emergency System will result in an organized and timely response to patients' needs, a more immediate determination of patients' definitive care requirements, improved patient care through the development of the hospital's performance improvement program and an assurance that those caring for trauma patients are educationally prepared:

THEREFORE; BE IT RESOLVED that the board of directors of [HOSPITAL] resolve to provide the resources necessary to achieve and sustain a Level V Trauma Center designation.

IN WITNESS THEREOF, I have hereunto subscribed my name this [DAY] day of [MONTH], [YEAR].

---

Chairman of the Board

# Sample Trauma Medical Director Job Description

**Job Title:** Trauma Program Medical Director

**Reports to:** Chief of Medical Staff

**Qualifications:**

1. MD, PA or NP.
2. Member in good standing of the hospital or clinic medical staff.
3. Currently certified in Advanced Trauma Life Support (ATLS).
4. Three years clinical experience in emergency/trauma care.
5. Two years administrative experience.
6. Ability to establish and maintain effective interpersonal relationships.
7. Ability to accept and implement change.
8. Ability to solve problems and make decisions.
9. Demonstrated history of positive relations with colleagues, support staff, hospital-based providers, administrators, and patients.

**Nature and Scope:** The Trauma Medical Director is responsible for the ongoing development, growth and oversight/authority of the Trauma Program. The Trauma Medical Director is responsible for promoting high standards of practice through development of trauma policies, protocols and practice guidelines; participating in performance improvement monitoring; and oversee staff education. He/she has authority to act on all trauma performance improvement and administrative issues and critically review trauma deaths and complications that occur within the center. Decisions affecting the care of trauma patients will not be made without the knowledge, input and approval of the Trauma Medical Director.

**Principal Duties and Responsibilities:**

Administration:

- Participate in the research, development and writing of trauma policies, protocols and practice guidelines.
- Implement all trauma program policies and procedures as they pertain to patient care.
- Organize, direct and integrate the trauma program with all other departments and services within the hospital.
- Promote a cooperative and collaborative working environment among the clinical disciplines involved in trauma care.
- Maintain an effective working relationship with the medical staff, trauma service staff, administration and other departments.
- Assess need for equipment, supplies, and budget
- Assist the Trauma Program Coordinator in developing and meeting the trauma program budgetary goals.
- Oversee, participate in, and develop projects that ensure the cost-effectiveness of care provided by physicians and hospital.

Program Initiatives:

- Develop and provide input on the development and maintenance of practice guidelines, policies, and methodologies for medical/surgical trauma care.
- Participate in site review by regulatory agencies.
- Organize, direct and implement departmental practices to assure continued compliance with applicable laws including the guidelines established by the Idaho Time Sensitive Emergency System.
- Demonstrate positive interpersonal relationship with colleagues, referral MDs, hospital personnel, and

patients/families in order to achieve maximum operational effectiveness and customer satisfaction.

- Assure transfer agreements are in place and in good standing; maintain relationship with receiving facilities; and foster collaborative relationships.
- Make appropriate referrals for specialty services and communicate regularly with referring physicians as appropriate.
- Provide trauma care leadership and consultation for emergency, surgery and intensive care unit departments.
- Participate in regional and statewide activities affecting the trauma program.
- Attend local and national meetings and conferences to remain current regarding issues relevant to the performance of duties.
- Demonstrate consistent, efficient, cost effective, and quality trauma care at all times.
- Participate in trauma patient/family satisfaction projects as developed by hospital.

#### Performance Improvement:

- Determine and implement PI activities appropriate to the trauma program.
- Oversee the trauma PI program and participate in other quality initiatives that deal with the care of injured patients.
- Review and investigate all trauma PI inquiries in collaboration with the Trauma Program Manager and refer to the appropriate committees.
- Monitor compliance with trauma treatment guidelines, policies and protocols.
- Assure that the quality and appropriateness of patient care are monitored and evaluated and that appropriate actions based on findings are taken on a consistent basis.
- Report quality of care issues promptly to appropriate individuals, including Trauma Program Manager and hospital administration.
- Identify and correct deficiencies in trauma care policies, guidelines and protocols.
- Consult with appropriate medical staff and administration regarding quality care issues and adverse outcomes; identify areas to improve patient care.
- Assure that continuum of care is maintained.
- Identify representatives from various disciplines appropriate to participate in PI activities.
- Coordinate, schedule, and facilitate the PI peer review process.
- Assist the Trauma Program Manager in evaluating the effectiveness of corrective actions resulting from PI processes.

#### Clinical Education:

- Support the requirements for trauma CME by participating and assisting in the education and training of center personnel physicians and specialists.
- Provide education for hospital staff regarding trauma program policies and appropriate medical practices.

#### Community Outreach:

- Maintain relations with community organizations and legislative bodies whose activities relate to trauma care and injury prevention.
- Participate in hospital outreach activities as requested by administration.
- Develop and participate in trauma community education and injury prevention activities.
- Function as a liaison to other centers within the region.

# MADE-UP MEMORIAL MEDICAL CENTER

## Trauma Program Manager Job Description

**JOB TITLE:** Trauma Medical Director

**DEPARTMENT:** Trauma Services

### **GENERAL SUMMARY:**

Maintains responsibility and accountability for trauma services strategic development, regulatory compliance and associated activities related to trauma care throughout the organization and within the community.

### **RESPONSIBILITIES:**

Adheres to the general Made-Up Memorial Medical Center standards to promote a cooperative work environment by utilizing communication skills, developing interpersonal relationships and team building; following MUMC and departmental policies and procedures contributing to the overall quality of services; staying informed of changes in policies and procedures.

Establishes effective networks with colleagues throughout Made-Up Memorial Medical Center and referral region; maintains interaction with all members of the healthcare team, administration, management, community, patients and families; develops and supports forums for discussion and resolution of product line issues; defines annual goals and objectives for the trauma services.

Ensures that trauma services are provided in accordance with Made-Up Memorial's mission, strategic initiatives and all internal and external regulatory standards; implements the mission of the trauma services line; maintains accreditation, regulatory and professional standards impacting trauma services.

Monitors financial viability of department through operational and capital budget input, expense control and quality improvement.

Ensures clinical progression toward defined quality outcomes, patient and family satisfaction, cost effectiveness and systems efficiency.

Enhances community outreach and education within the referral area.

Serves as unifying force to achieve trauma services goals and overall organizational strategic commitments to care; recognizes and responds to contemporary healthcare trends and reimbursement issues impacting healthcare delivery practices.

Ensures age developmentally appropriate care is provided in accordance with care guidelines for specific age groups served.

### **ORGANIZATIONAL RESPONSIBILITY STATEMENT:**

In addition to the job-specific responsibilities listed above, all employees are expected to support and model Made-Up Memorial's Mission, Vision, Values, Fundamentals of Teamwork, Service Philosophy (CREDO), and other organizational

competencies e.g. quality management, fiscal responsibility, safety and continuous learning. Employees will be held accountable for knowledge and effective application of these principles.

## **REQUIRED QUALIFICATIONS:**

### **Education**

Associates degree in nursing.

### **Experience**

5+ years in trauma, emergency or critical care services (or equivalent education and/or experience).

### **Certification/Licensure**

ID State RN licensure, certification from Trauma Nursing Core Course (TNCC), Basic Life Support (BLS) for Healthcare Providers, Advanced Cardiac Life Support (ACLS), and Pediatric Advanced Life Support (PALS).

### **Skills**

Excellent oral, written and interpersonal communication skills; strong analysis/problem solving skills; computer skills; proven leadership ability; excellent planning, budgeting and fiscal management; exceptional skill and nursing practice in the trauma environment facilitating identification of potential clinical situations impacting trauma outcomes; ability to analyze data abstraction relations to trauma registry; ability to educate; excellent presentation skills.

## **PREFERRED QUALIFICATIONS:**

Bachelor's degree in nursing or health related field with a minimum of 5 years emergency, trauma and/or critical care nursing experience; previous management, strategic planning, program development and budgetary experience.

## **WORKING CONDITIONS:**

### **Physical Requirements**

Work requires moderate physical exertion up to 33% of the time with ability to lift objects weighing 50 lbs. or less.

### **Environmental Conditions**

Work is performed under normal working conditions with adequate lighting and ventilation; reasonably anticipated exposure to blood and body fluids once per month or more.

### **Mental/Visual Requirements**

Job duties frequently require intense concentration or attention to detail (34-65% of work time)

# Trauma Triage Guidelines

*These guidelines were approved for statewide use by the Idaho Time Sensitive Emergency Council on July 14, 2015.*

## Priority 1

- SBP of 90 or less, respiratory rate <10 or >30
- Tachycardia HR >130 AND meet Priority 2 criteria
- Age specific hypotension in children
  - <70mmHg + 2 x age)
  - HR > 200 or < 60
- Respiratory compromise/obstruction
- Intubation
- Inter-facility transfer patients receiving blood to maintain vital signs
- GCS 8 or less with mechanism attributed to trauma
- Major limb amputation
- Pregnancy >20 weeks gestation with leaking fluid or bleeding or abdominal pain that also meets Priority 3 criteria
- Open skull fracture
- Paralysis of an extremity
- Penetrating injury to abdomen, head, neck, chest or proximal limbs including the knee and elbow
- Emergency MD Discretion

## Priority 2

- GCS 9 to 13
- Chest tube/ needle thoracotomy
- Pelvic fracture (suspected)
- Two obvious long bone fractures (femur/ humerus)
- Flail chest
- Near drowning
- Ejection from ENCLOSED vehicle
- Burns > 20% BSA OR involvement of face, airway, hands, or genitalia
- Sensory deficit of an extremity

## Priority 3

- Death of same car occupant
- Extrication time > 20 minutes
- Fall 2 x patient's height
- Auto vs. bike OR auto vs. pedestrian
- Non-enclosed wheeled or mechanized transport > 20 mph
- Horse ejection or rollover
- 12" intrusion into occupant space or vehicle
- "Star" any window or windshield
- Rollover
- Broken/bent steering wheel
- Trauma mechanism w/ change in LOC
- Amputation of one or more digits
- 10-20% TBSA (second or third degree)

# Criteria for Consideration of Transfer

## Central Nervous System

- Penetrating injury/open fracture, with or without cerebrospinal fluid leak
- Depressed skull fracture
- GCS <14 or deterioration
- Spinal cord injury or major vertebral injury

## Chest

- Major chest wall injury or pulmonary contusion
- Wide mediastinum or other signs suggesting great vessel injury
- Cardiac injury
- Patients who may require prolonged ventilation

## Pelvis/Abdomen

- Unstable pelvic ring disruption
- Pelvic fracture with shock or other evidences of continuing hemorrhage
- Open pelvic injury
- Solid organ injury

## Major Extremity Injuries

- Fracture/dislocation with loss of distal pulses
- Open long-bone fractures
- Extremity ischemia

## Multiple-System Injury

- Head injury combined with face, chest, abdominal, or pelvic injury
- Burns with associated injuries
- Multiple long-bone fractures
- Injury to more than two body regions

## Co-morbid Factors

- Age >55 years
- Children  $\leq$ 5 years of age
- Cardiac or respiratory disease
- Insulin-dependent diabetes, morbid obesity
- Pregnancy
- Immunosuppression

## Secondary Deterioration (Late Sequelae)

- Mechanical ventilation required
- Sepsis
- Single or multiple organ system failure (deterioration in central nervous, cardiac, pulmonary, hepatic, renal, or coagulation systems)
- Major tissue necrosis

# Response to Graded Activation

For each priority activation, the Trauma Team members are:

## Priority-1 Activation

- Emergency provider (present within 30 minutes of patient's arrival)
- One or two emergency department RNs
- Nursing supervisor
- Emergency department tech or EMT
- Respiratory therapy
- Laboratory technician
- Radiology technician
- Emergency department unit secretary
- Security
- Social services or chaplain

## Priority-2 Activation

- Emergency provider (present within 30 minutes of patient's arrival)
- Emergency department RN
- Nursing supervisor
- Emergency department tech or EMT
- Radiology technician
- Laboratory technician
- Emergency department unit secretary
- Security

## Priority-3 Activation

- Emergency provider (present within 30 minutes of patient's arrival)
- Emergency department RN
- Emergency department tech or EMT

# Transfer Agreement Example

This agreement is made and entered into by and between YOUR FACILITY NAME, CITY, STATE, a nonprofit corporation (hereinafter called "YOUR FACILITY") and RECEIVING FACILITY NAME, CITY, STATE, a nonprofit corporation, (hereinafter called "RECEIVING FACILITY"):

WHEREAS, both YOUR FACILITY and RECEIVING FACILITY desire, by both means of this Agreement, to assist physicians and the parties hereto in the treatment of trauma patients (e.g., burn, traumatic brain injuries, spinal cord injuries, pediatrics); and whereas the parties specifically wish to facilitate: (a) the timely transfer of patients and information necessary or useful in the care and treatment of trauma patients transferred, (b) the continuity of the care and treatment appropriate to the needs of trauma patients, and (c) the utilization of knowledge and other resources of both facilities in a coordinated and cooperative manner to improve the professional health care of trauma patients.

IT IS, THEREFORE, AGREED by and between the parties as follows:

PATIENT TRANSFER: The need for transfer of a patient from YOUR FACILITY to RECEIVING FACILITY shall be determined and recommended by the patient's attending physician in such physician's own medical judgment. When a transfer is recommended as medically appropriate, a trauma patient at YOUR FACILITY shall be transferred and admitted to RECEIVING FACILITY as promptly as possible under the circumstances, provided that beds and other appropriate resources are available. Acceptance of the patient by RECEIVING FACILITY will be made pursuant to admission policies and procedures of RECEIVING FACILITY.

YOUR FACILITY agrees that it shall:

Notify RECEIVING FACILITY as far in advance as possible of transfer of a trauma patient.

Transfer to RECEIVING FACILITY the personal effects, including money and valuables and information relating to same.

Make every effort within its resources to stabilize the patient to avoid all immediate threats to life and limbs. If stabilization is not possible, YOUR FACILITY shall either establish that the transfer is the result of an informed written request of the patient or his or her surrogate or shall have obtained a written certification from a physician or other qualified medical person in consultation with a physician that the medical benefits expected from the transfer outweigh the increased risk of transfer.

Affect the transfer to RECEIVING FACILITY through qualified personnel and appropriate transportation equipment, including the use of necessary and medically appropriate life support measures.

YOUR FACILITY agrees to transmit with each patient at the time of transfer, or in the case of emergency, as promptly as possible thereafter, pertinent medical information and records necessary to continue the patient's treatment and to provide identifying and other information.

RECEIVING FACILITY agrees to state where the patient is to be delivered and agrees to provide information about the type of resources it has available.

Bills incurred with respect to services preformed by either party to the Agreement shall be collected by the party rendering such services directly from the patient, third party, and neither party shall have any liability to the other for such charges.

This agreement shall be effective from the date of execution and shall continue in effect indefinitely. Either party may terminate this agreement on thirty (30) days notice in writing to the other party. If either party shall have its license to operate revoked by the state, this Agreement shall terminate on the date such revocation becomes effective.

Each party to the Agreement shall be responsible for its own acts and omissions and those of their employees and contractors and shall not be responsible for the acts and omissions of the other institutions.

Nothing in this Agreement shall be construed as limiting the right of either to affiliate or contract with any hospital or nursing home on either a limited or general basis while this agreement is in effect.

Neither party shall use the name of the other in any promotional or advertising material unless review and written approval of the intended use shall first be obtained from the party whose name is to be used.

This agreement shall be governed by the laws of the State of Minnesota. Both parties agree to comply with the Emergency Medical Treatment and Active Labor Act of 1986, and the Health Insurance Portability and Accountability Act of 1996 and the rules now and hereafter promulgated thereunder.

This Agreement may be modified or amended from time to time by mutual agreement of the parties, and any such modification or amendment shall be attached to and become part of the Agreement.

YOUR FACILITY

RECEIVING FACILITY

SIGNED BY:

SIGNED BY:

DATE:

DATE:

# Sample Trauma Transfer Protocol

## Purpose:

Trauma patients who will be transferred out of this facility to a definitive care facility emergently must be identified early, assessed and treated quickly and transferred efficiently in order to provide them the best possible outcome.

## Policy:

Patients to be transferred can often be identified before they arrive in the emergency department. Arrangements for emergent transfer can often begin the moment the emergency department staff is notified by EMS that they are en route with a major trauma patient. Other patients may require evaluation by the emergency department physician before the decision to transfer is made.

Once the decision to transfer has been made, it should not be delayed to obtain X rays, CT scans or laboratory results that do not immediately impact the resuscitation. At this point, the focus of the emergency department staff is on resuscitation and stabilization with the goal of minimizing the patient's length of stay in the emergency department.

Consideration should be given to whether the patient will be transferred via ground or air. Generally, seriously injured trauma patients should be transferred by air when possible. Consideration should be given to ground transport if the patient can be received by the definitive care facility sooner than if transported by air or if aero medical transfer is significantly delayed or unavailable for any reason.

Transport vehicles should be staffed by paramedics and/or nurses whenever possible. Trauma patients on whom invasive procedures have been performed or who have received medications must be transferred under the care of personnel who are adequately trained to manage their resulting condition. If necessary, a physician or nurse from this hospital may accompany the patient.

## The following are conditions that should immediately activate emergency transfer procedures:

- Central Nervous System
  - Penetrating injury/open fracture with or without cerebrospinal fluid leak
  - Depressed skull fracture
  - GCS <11 or deteriorating mental status or lateralizing neurological signs
  - Spinal cord injury or major vertebral injury
  - Chest
    - Major chest wall injury or pulmonary contusion
    - Wide mediastinum or other signs suggesting great vessel injury
  - Cardiac injury
  - Pelvis/Abdomen
    - Pelvic fracture with shock or other evidences of continuing hemorrhage
    - Open pelvic injury
    - Unstable pelvic ring disruption
  - Major abdominal vascular injury
  - Major Extremity Injuries
    - Fracture/dislocation with loss of distal pulses
  - Multiple-System Injury
  - Head injury combined with face, chest, abdominal, or pelvic injury

- o Burns with associated injuries
- o Secondary Deterioration (Late Sequelae)
- o Single or multiple organ system failure (deterioration in central nervous, cardiac, pulmonary, hepatic, renal, or coagulation systems)
- Major tissue necrosis

The following conditions should be considered for immediate transfer:

- Central Nervous System
  - o GCS >10 and <14
- Chest
  - o Patients who may require prolonged ventilation
  - o >2 unilateral rib fractures
  - o Abdomen
  - o Solid organ injury
  - o Major Extremity Injuries
  - o Open long-bone fractures
  - o Extremity ischemia
  - o Multiple long-bone fractures
- Multiple-System Injury
  - o Injury to more than two body regions
- Co-morbid Factors
  - o Age >55 years
  - o Children  $\leq$  5 years of age
  - o Cardiac or respiratory disease
  - o Insulin-dependent diabetes
  - o Morbid obesity
  - o Pregnancy
  - o Immunosuppression
- Secondary Deterioration (Late Sequelae)
  - o Mechanical ventilation required

SAMPLE

**Procedure:**

Before patient arrival:

1. After becoming aware that a trauma patient is en route who likely will require emergent transfer, the emergency department staff activates the trauma team and notifies the emergency department physician of the likelihood of transfer. Ascertain from EMS if they have already ordered aero medical transportation.
2. The physician identifies the appropriate mode of transfer (i.e., aero medical vs. ground) and qualifications of transferring personnel.
3. HUC contacts the appropriate aero medical and/or ground transportation, obtains ETA:
  - [INSERT CONTACT INFORMATION]
  - [INSERT CONTACT INFORMATION]
  - [INSERT CONTACT INFORMATION]

After patient arrival:

1. The physician identifies and contacts the receiving facility, and requests the receiving physician to accept the transfer. The two should discuss the current physiological status of the patient and the optimal timing of transfer.
2. Before transfer, the physician should:
  - Ensure chest tubes are placed in the presence of pneumothorax.
  - Ensure at least two IV lines are established.
  - Consider securing the airway with an endotracheal tube, LMA or surgical airway if GCS <11.
  - Consider sending additional blood, equipment and supplies (medications, fluids, etc.) that the patient may need en route if not available in the transporting vehicle.
3. The HUC copies of all available documentation to accompany the patient:
  - EMS report
  - Resuscitation record
  - X rays, CT scans
  - Lab results

SAMPLE

# Essential Postanesthesia Care Unit Equipment

Taken from *Resources for Optimal Care of the Injured Patient, COT/American College of Surgeons, 2006.*

- Pulse oximetry
- End-tidal carbon dioxide detection
- Arterial pressure monitoring
- Pulmonary artery catheterization
- Patient rewarming

# Trauma Diversion Policy

## **Purpose:**

Occasions may arise when one or more essential hospital resources are functioning at maximum capacity or otherwise unavailable and it is in the best interests of the trauma patient to be directed to an alternative facility for care.

## **Policy:**

The need to go on “trauma divert” is a rare situation but might occur in the following circumstances:

- The emergency department is saturated; demand for critical patient care resources exceeds availability.
- Emergency department resources are fully committed due to an external disaster/multiple-casualty event.
- Emergency department resources are unavailable due to an internal disaster or catastrophic mechanical failure.

In such rare cases, the emergency department physician may make the decision to divert trauma patients for a short period of time. The need to remain on divert status should be reviewed at least hourly to provide for the shortest possible time on divert.

The diversion of trauma patients only pertains to incoming ambulance patients and not to walk-in patients. A patient incoming via ambulance while on “trauma divert” will be accepted if the EMS provider and monitoring physician determine that the patient is experiencing a condition such that transport to the next closest appropriate trauma hospital could reasonably result in increased morbidity or death. “Trauma divert” status is a request to EMS personnel to transport the patient to another facility. The patient or EMS personnel may decline the request to divert provided they have been properly apprised of the potential for delayed treatment affecting the care of the patient.

Ambulance patients who have arrived on hospital property will be admitted to the emergency department and evaluated by a physician regardless of the hospital’s diversion status.

## **Procedure:**

### Going on divert:

1. The emergency department physician will decide on the need to go on “trauma divert.” The physician will notify the emergency department charge nurse.
2. The charge nurse notifies the following of trauma divert status:
  - a. Emergency department nursing staff
  - b. EMS dispatch center(s) (e.g. sheriff departments); request EMS personnel to call hospital early with patient information
  - b. [NEIGHBORING HOSPITAL(S)]
3. The emergency department charge nurse begins a “Trauma Divert Tracking Log.”

When contacted by EMS with information regarding a seriously injured trauma patient, the emergency department staff person taking report notifies the EMS crew that the hospital is on trauma divert and immediately puts the crew in contact with the emergency department physician. The physician will determine if the patient is to be seen in the emergency department or diverted to a nearby facility. The decision whether of not to divert must be accomplished very quickly in order to minimize the amount of time the patient spends in transit.

Going off divert:

1. The emergency physician who initiated the closure must:
  - a. Continuously evaluate the need to remain on trauma divert.
  - b. Make the decision as to when the hospital is no longer on trauma divert.
  - c. Notify the emergency department charge nurse when no longer on trauma divert.
2. The charge nurse notifies:
  - a. Emergency department nursing staff
  - b. EMS dispatch center
  - c. [NEIGHBORING HOSPITAL(S)]
3. The emergency department charge nurse completes the "Trauma Divert Tracking Log" and forwards it to the trauma program manager.

# Injury Prevention Job Description

**POSITION TITLE:** Trauma Injury Prevention Coordinator

**REPORTS TO:** Trauma Program Manager

## **POSITION PURPOSE:**

This position is responsible for the overall planning, development and oversight of the Trauma Prevention Program for [NAME OF FACILITY]'s Trauma Center. The objectives of the program are to:

- (1) Educate the community about injury prevention and trauma care; to indirectly decrease death and injury by improving trauma care within the region; and
- (2) Raise the visibility of [NAME OF FACILITY]'s Trauma Center through increasing public awareness by generating positive media coverage through community outreach.

## **EDUCATION/OUTREACH**

- Assist Trauma Program Manager with development and implementation of injury prevention programs.
- Act as a liaison to other hospitals and community groups related to trauma prevention and outreach.

## **JOB REQUIREMENTS:**

- Capable of effectively handling multiple priorities.
- Experience in developing, overseeing and evaluating the effectiveness of community benefit programs.
- Strong organizational and planning skills.
- Basic graphic design principles.
- Basic desktop publishing techniques.
- Strong media relations skills an asset.
- Effective time management skills.
- Knowledge of communications theory and public relations techniques.
- Understanding of and recent experience in, the healthcare environment.
- Public Speaking

## **DESIRED QUALIFICATIONS:**

### Education:

- Current licensure as a Registered Nurse in the state of Idaho

### Experience:

- Experience in a trauma care setting.
- Skill in the use of Microsoft Office.
- Ties in the healthcare/safety community are a plus.
- Teaching and leadership experience.

**National Incident Management System (NIMS) Compliance  
For Healthcare Organizations  
July 2015**

The NIMS compliance activities are outlined in the Federal Emergency Management Agency (FEMA), National Integration Center, Incident Management Systems Division document entitled “NIMS Implementation Activities for Healthcare Organizations”. Additional information on this document may be found at [http://www.fema.gov/pdf/emergency/nims/imp\\_hos.pdf](http://www.fema.gov/pdf/emergency/nims/imp_hos.pdf) and <http://www.fema.gov/national-incident-management-system>.

	<b>NIMS Element</b>
<b>Adoption</b>	<u>Element 1</u> Adopt the National Incident Management System (NIMS) throughout the healthcare organization to include appropriate departments and business units.
	<u>Element 2</u> Ensure Federal Preparedness grants and cooperative agreements support NIMS implementation (in accordance with the eligibility and allowable uses of the awards).
<b>Preparedness: Planning</b>	<u>Element 3</u> Revise and update emergency operations plans (EOPs), standard operating procedures (SOPs), and standard operating guidelines (SOGs) to incorporate NIMS and National Response Framework (NRF) components, principles and policies, to include planning, training, response, exercises, equipment, evaluation, and corrective actions.
	<u>Element 4</u> Participate in interagency mutual aid and/or assistance agreements, to include agreements with public and private sector and nongovernmental organizations.
<b>Preparedness: Training and Exercises</b>	<u>Element 5</u> Implement ICS-700: NIMS, An Introduction, ICS-100: Introduction to ICS, and ICS-200: ICS for Single Resources training to appropriate personnel.
	<u>Element 6</u> Implement ICS-800 National Response Framework (NRF): Introduction training to appropriate personnel.
	<u>Element 7</u> Promote and integrate, as appropriate, NIMS concepts and principles (i.e. the Incident Command System) into all healthcare organization-related training and exercises.

	<b>NIMS Element</b>
<b>Communication and Information Management</b>	<u>Element 8</u> Promote and ensure that hospital processes, equipment, communication, and data interoperability facilitate the collection and distribution of consistent and accurate information with local and state partners during an incident or event.
	<u>Element 9</u> Apply common and consistent terminology as promoted in NIMS, including the establishment of plain language communications standards.
<b>Command and Management</b>	<u>Element 10</u> Manage all emergency incidents, exercises, and preplanned (recurring/special) events with consistent application of ICS organizational structures, doctrine, processes, and procedures.
	<u>Element 11</u> Adopt the principle of Public Information, facilitated by the use of the Joint Information System (JIS) and Joint Information Center (JIC) ensuring that Public Information procedures and processes gather, verify, coordinate, and disseminate information during an incident or event.

[http://www.fema.gov/pdf/emergency/nims/nims\\_training\\_program.pdf](http://www.fema.gov/pdf/emergency/nims/nims_training_program.pdf)

<http://www.fema.gov/training-0/>



## Required Information for Spending Plan Summary

**Proposed Project:** Short description of project to be funded that provides context on the expenditure. For example, “training materials” alone would not be sufficient.

**Requesting Entity Name:** Legal name of entity that will receive the funds. If multiple partners will participate in one project, include a line for each participating entity. For example, if 5 hospitals will be funded for a training or exercise, list each recipient on a separate line with the same project name.

**Entity Authorized Representative:** Contact person for project planning and verification of completion

**Justification of Need:** Provide a strong justification of the need for the training or exercise participation in terms of preparedness gaps to be addressed or findings from past real events, exercises, or AAR-IPs. Federal grant requirements state that exercises and training must be gap-based. Justifications must identify gaps to be addressed.

**Item(s) to be Purchased:** List name and quantity of each item. Use multiple lines if needed.

**Category Code:** Select one from list below. Use a separate line for each funding category within an entity request and project.

P – Personnel salaries including fringe

S – Supplies and equipment

T - Travel

**Budget Detail:** Refer to Training and Exercise guidance for budget detail necessary to meet federal budget requirements for audit purposes. The spending plan will not be approved if insufficient budget detail is provided. Attach a vendor quote for each asset or service contract that exceeds \$5,000 per item.

**Amount Requested:** Round to nearest whole dollar.

**Budget Total:** Total must equal \$18,000 on final submission.

**Partial Spending Plan versus Final Spending Plan Approval:** A partial spending plan for an amount less than \$18,000 or a final spending plan for the total funding amount of \$18,000 may be submitted for approval. Both options are offered to allow funding to be used to support RHCC participation in trainings or exercises in the first half of the contract period as well as to allow sufficient time for the RHCC to determine funding needs for a training or exercise in the second half of the contract period. For example, a partial spending plan could be used to send a coalition member to the National Healthcare Conference in December while allowing more time for exercise planning later in the year.

If a partial spending plan is submitted, a final spending plan for \$18,000 must be submitted for approval with the 2015 HPP Q2 report on or before January 15, 2016. If a partial spending plan is submitted, the final

spending plan summary must contain the information from the partial plan as well as information for the remainder of the funding. This will ensure that a complete spending plan is provided in one document. Information from the partial plan should be separated and clearly distinguished from new requests for the January submission. Regardless of when it is submitted, the final spending plan must include all projects and reflect a budget total of \$18,000.

**End of Year Final Reporting:** A final accounting of actual costs will be submitted with the HPP 2015 Q4 deliverables using the same spend plan template as was originally approved. Costs should be supported to the same level of detail as the original spend plan and should be consistent with invoices and receipts that are retained by the contractor. Additional NIMS documents are not needed unless a recipient was not fully NIMS compliant on the first spend plan submission within the 2015 subgrant period. A coalition consensus signature sheet is not needed. Separate realignment documentation is not needed. If the contractor has all of the required information in an internal format such as a fiscal report, that may be substituted for the spend plan template but the cover sheet and budget summary should be included with the final submission. Please update the cover to reflect a final report and date so records are clear for audit purposes.

# Creating a Disaster Plan

## 1. Establish a hospital disaster committee consisting of the following:

- a. Chair;
- b. Vice-chair administrative representative;
- c. Trauma surgeon representative;
- d. Trauma service administrative representative;
- e. Security representative;
- f. Medical staff representative from surgery, anesthesiology, pathology, radiology, infectious disease, medicine, pediatrics, and emergency medicine;
- g. Radiation safety officer;
- h. Nursing staff representatives (ED, OR, inpatient);
- i. Medical records representative;
- j. Information technology representative;
- k. Communications representatives;
- l. Social service representatives;
- m. Public relations representative;
- n. Supply representative; and
- o. Pastoral care representative.

## 2. Document potential disasters for the region.

- a. Evaluate local geography, demographics, industry, and epidemiologic data for hazards.
- b. Determine the regional history of natural hazards.
- c. Sources of information about hazards could include fire department, law enforcement agencies, National Oceanic and Atmospheric Administration, US Army Corps of Engineers, and Department of Transportation (hazardous material on highways and railroads).

## 3. Establish interagency and inter-institutional agreements.

## 4. Determine realistic institutional capacity and capability.

- a. Determine maximum number of beds, categories (for example, ICU, ward, adult, pediatric, burn), and locations.

- b. Develop a protocol to assess inpatients for potential early discharge or relocation to make beds available for casualties.
  - c. Plan a mechanism to place a hold on elective and non-urgent surgery.
5. Determine desired and available basic and disaster supplies, including hospital inventory and emergency stockpile.
- a. Blood supply arrangements should be made with the Red Cross and other suppliers of blood and included in simulation exercises.
  - b. Stockpiles of reinforcement supplies available on a 24-hour basis should be located among commercial sources, other institutions, the military, and FEMA, so that they can be obtained readily by telephone.
  - c. Food, water, and energy needs should be considered for specific disasters: consider sources, amounts, and length of time.
6. Develop a flow chart of mass casualties through hospital areas, ensuring the following:
- a. Patient flow is unidirectional (to avoid bottlenecks in ED and radiology).
  - b. Patient traffic does not enter and leave any area through the same door.
7. Designate hospital space for the following:
- a. Patient unloading area
    - i. Ground vehicles require careful traffic control with provision for buses and trucks.
    - ii. Helicopters need a designated landing area.
  - b. Triage criteria should be developed according to types of injured patients seen and number of victims involved in the disaster.
  - c. A triage area should be designated. Depending on the configuration of the hospital, access to the triage area, and the number of patients involved, this area may or may not use the ED. (For mass casualties, an area other than the ED should be used. The ED should be reserved for patient care.)
  - d. Critical stabilization area (usually the ED);
  - e. Preoperative area, immediate and delayed;
  - f. Operative area;
  - g. Postoperative area;
  - h. Burn treatment area;

- i. Minor surgery area;
  - J. Hazardous chemical or radioactive material decontamination areas and receptacles for contaminated materials;
  - k. Expectant area (for dying patients);
  - l. Morgue;
  - m. Psychiatric area within the institution or at nearby schools, hotels, or motels for psychiatrically trained medical, nursing, social service, and security personnel to work with the following:
    - i. People from the disaster area, including rescue personnel;
    - ii. People disturbed by the news generated by the disaster; and
    - iii. Family, friends, and others.
  - n. Press conference room with space for many telephones and for minor amenities outside the patient-care perimeter;
  - o. Record and evidence area;
  - p. Recruitment and assignment office to assist in assessing and assigning volunteers; and
  - q. Disaster support center, including the following:
    - i. Administrative control center; and
    - ii. Communications center.
8. Develop a system to summon and assign personnel to designated patient-care areas. Call-up needs should consist of internal and external call-up. ED and other in-hospital personnel will be assigned as hospital first responders for key posts until external call-up can be affected. Keep assignments flexible and updated. Do quarterly updates of telephone number rosters. A designated reporting area away from the ED for sign-in should be established.
9. Personnel resources:
- a. Hospital disaster commander and emergency operating center liaison plus at least 2 alternates based in the disaster support center
  - b. The triage officer should be a physician who has the knowledge necessary for optimally using the resources required to care for severely injured patients. Physicians need to be available for field triage as part of a disaster site medical team and for in-house triage as assigned by the disaster commander. Non-physician medical personnel may serve in this roll in certain settings if properly trained.
  - c. Physicians, nurses, a radiation safety officer, and administrative staff are assigned to specific patient-care areas. Develop an instruction packet for use in each patient-care area describing their specific functions during a disaster.

- d. A chief security officer in charge of the perimeter and other security to assist in identifying various people, control the press, act as morgue officer under the pathologist's supervision, and inventory victims' valuables and evidentiary materials.
- e. Public relations-media person: 1 person using the press conference technique should be the sole communication link with the press.
- f. Patient transport personnel.

10. Provision for food and rest for disaster personnel:

- a. Shift schedules to allow regular rotations to equalize workload and prevent provider fatigue; and
- b. Critical incident stress management program to recognize and treat providers who show signs of stress, exhaustion, and/or emotional disability.

11. Communications system compatible with other EMS elements (Consider the possibility that the present system might be overwhelmed or disrupted.):

- a. Intra-agency operating center:
  - i. Emergency operating center
  - ii. Fire department, law enforcement agencies, and ambulance and helicopter services
  - iii. Predetermined method of radio frequency selection to be used by each agency
  - iv. Provision for "secondary distribution" of casualties from overloaded facilities to those with more capacity to assure maximal casualty treatment
- b. Inter-hospital system

12. Establish medical record and patient identification systems, including identification of triage category.

13. Define institutional and staff security.

- a. Secure perimeter of hospital
- b. Secure perimeter of patient-care area
- c. Provide for ready access to all areas of hospital through elevator control and in-hospital crowd control
- d. Ensure personnel security (control and identification)
- e. Identify a designated area for members of the press
- f. Perform regional hazard assessment
  - i. Radiation protection

- ii. Hazardous material protection
- iii. Emphasis of neutrality in riot situations

14. Debrief and counsel disaster and rescue personnel on a routine basis.

15. Critique each disaster response, and modify the plan to reduce future errors within 24 hours of disaster.

16. Transfer agreements

- a. Protocols should include the flexibility needed for disasters.



**Title:** Determining Brain Death

**Policy Statement:** Criteria for determining brain death shall be established in accordance with accepted medical standards.

**Procedure:**

**I. Definition of Brain Death:**

- A. Brain death is the absence of brain function when the proximate cause is known, can be demonstrated to be irreversible, and demonstrated by repetitive standardized criteria.
- B. Prerequisite: Acute Central Nervous System (CNS) catastrophe and involved clinical situations which can be documented by clinical and neuroimaging testing.
- C. Exclusion Criteria:
  - 1. Core temperature less than or equal to 95° Fahrenheit or 32° Celsius.
  - 2. Reversible electrolyte, metabolic or endocrine disorder.
  - 3. Drug overdose or therapeutic mean substance intoxication or poisoning:
    - a) Sub-therapeutic barbiturate level is acceptable.
    - b) Discontinue all sedation and neuromuscular blockade.

**II. Procedure for Brain Death Examination:**

- A. The three cardinal findings in brain death are:
  - 1. Coma or unresponsiveness (see Appendix A),
  - 2. Absence of brain stem function (see Appendix B), and
    - a) No pupillary reflex.
    - b) No facial sensation and facial motor response.
    - c) No ocular movement
    - d) No oculovestibular reflex (caloric)
    - e) No gag reflex
    - f) No integrated motor response to pain. No localizing, withdrawal, extensor posturing, flexor posturing.
  - 3. Apnea (see Appendix C).
- B. Brain Death Determination
  - 1. Must be done in the presence of a physician.
  - 2. Results will be recorded in the progress notes by documenting the supporting evidence and pronouncing brain death.
  - 3. In some instances, the test may need to be repeated at 12, 24, and 48 hours.

4. Following physician declaration of brain death the clinical coordinator should be notified to determine if the patient meets criteria for coroner notification. Such notification should occur at time of brain death determination rather than at the time of cardiac death.

#### C. Pediatric Brain Death

1. The same excluding criteria as for adults will be used for patients less than 14 years and less than 120 pounds.
2. Special instructions for individualized pediatric apnea tests are noted in Appendix D.

### III. Appendix A: Coma or Unresponsiveness:

- A. No spontaneous movement, eye opening or responses after commands.
- B. No movement elicited by painful stimuli, other than spinal cord reflex movements.
- C. Note:
  1. Deep tendon reflexes are spinal cord reflexes.
  2. Shivering, goose bumps, arm movements, reaching of the hands toward the neck, arching of the back, forced exhalation, and thoracic respiratory-like movements are possible after brain death and are likely release phenomena of the spinal cord including the upper cervical cord.

### IV. Appendix B: Absence of Brain Stem Function:

- A. No pupillary reflex.
  1. Pupils are fixed and mid position (4-9 mm).
  2. No change after shining a strong light in each eye sequentially in a dark room.
- B. Facial sensation and facial motor response.
  1. No corneal reflex to touch with a sterile cotton swab or tissue. Must touch the cornea and not the conjunctiva.
  2. No grimacing to deep pressure on nail bed, supraorbital ridge or TM joint.
- C. Ocular movement.
  1. No oculoccephalic reflex (doll's eyes) (tested only if no c-spine instability).
  2. No eye movement in response to turning of head side to side at 30° elevation.
- D. No oculovestibular reflex (caloric).
  1. No eye movements within three minutes after irrigating each tympanic membrane sequentially with 50 ml iced water for 45-60 seconds.
  2. Allow five minutes between testing on each side. Head of supine patient is elevated 30°.
  3. Remove cerumen. Tympanic membranes must be intact.
- E. No gag reflex. No retching or movement of the uvula after touching the back of pharynx or moving the endotracheal tube.
- F. No integrated motor response to pain. No localizing, withdrawal, extensor posturing, flexor posturing.

## V. Appendix C: Apnea Testing:

### A. To reduce the incidence of barotrauma:

1. Oxygen catheter should be no larger than 50% of the inner diameter of the artificial airway to prevent excessive back pressure.
2. Oxygen flow should be reduced to 4 LPM if the artificial airway is smaller than a size 6.5.

### B. Done with patient under direct physician visualization:

1. Verify patient's body temperature is greater than 95° Fahrenheit.
2. Verify levels of central nervous system depressants/neuromuscular blockers.
3. Oxygenate the patient for at least ten (10) minutes with 100% FiO<sub>2</sub>.
4. Adjust ventilator for pCO<sub>2</sub> in the normal range.
  - a) If the patient is chronically hypercarbic, then adjust the ventilator to the normal pH.
  - b) In this case, it is best to obtain a confirmatory test.
5. Obtain a baseline ABG.
6. Disconnect the ventilator.
7. Place oxygen catheter down endotracheal tube or trach at six liters/minute.
8. Observe closely for respiratory effort.
9. Monitor heart rate, heart rhythm, and blood pressure continuously.
10. Document vital signs and observations every two to three minutes.
11. Draw an ABG at six to ten (6-10) minutes.
12. Discontinue test when:
  - a) Signs of respiratory effort, cardiac instability, or hypotension are observed.
  - b) pCO<sub>2</sub> of 60 torr is reached.
  - c) Patient has been off ventilator for ten (10) minutes.

### C. Interpretation of the apnea test:

1. If respiratory movements are absent and the PaCO<sub>2</sub> is greater than or equal to 60 mm/Hg, and greater than or equal to 20 mm/Hg rise above the preapnea test level, the apnea test is positive and supports the diagnosis of brain death. (What if the PaCO<sub>2</sub> is less than 60 off vent?)
2. If respiratory movements are observed, the apnea test is negative and test should be repeated.
3. If the ventilator is reconnected early but the PaCO<sub>2</sub> is greater than or equal to 60 mm/Hg or greater than or equal to 20 mm/Hg above baseline, the apnea test is positive and supports the diagnosis of brain death.
4. If the ventilator is reconnected early but the PaCO<sub>2</sub> is less than 60 mm/Hg and less than 20 mm/Hg above baseline, then the result is indeterminate and an

additional confirmatory test can be considered.

- D. In some equivocal cases cerebral blood flow testing may be an adjunct.
  - 1. Demonstration of absence of intracranial circulation by angiographic contrast or radioisotopic flow studies.
  - 2. Somatosensory evoked potential with bilateral absence of N20-P22 response with median nerve stimulation.
  - 3. Demonstration of absence of cerebrovascular blood flow following MRI/MRA imaging.

**VI. Appendix D: Pediatric Brain Death – Special Instructions:**

- A. Set appointment time when the treatment team can be present at the bedside under the direction of the Pediatric Neurologist team leader.
- B. Ensure and document that patient is normothermic and not under the influence of medications which suppress respirations.
- C. Pre-oxygenate the patient with 100% FiO<sub>2</sub> for fifteen to twenty (15-20) minutes.
- D. Adjust ventilator rate so that the patient's starting pCO<sub>2</sub> is between 35-40 mm/Hg per TcPCO<sub>2</sub> monitor.
- E. After completion of hyperoxygenation and achievement of TcPCO<sub>2</sub> stabilization, draw ABG and ensure that the gas levels correlate with the bedside TcPCO<sub>2</sub> monitor.
- F. Turn the ventilator to CPAP mode or CPAP level specified by the physician.
- G. Chart the patient's vital signs, SpO<sub>2</sub>, TcCO<sub>2</sub> and independent respiratory efforts at one (1), three (3), five (5), seven (7), and ten (10) minute test periods.
- H. Draw a posttest ABG.
- I. Reinstate mechanical ventilation per physician order.

**Resources:**

- Guidelines for the determination of death; report of the Medical Consultants on the Diagnosis of Death to the President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research. JAMA 1981; 246:2184-2186.
- Practice parameters for determining brain death in adults (Summary statement). Quality Standards Subcommittee of the American Academy of Neurology. Neurology 1995; 45:1012-1014.
- Guidelines for the determination of brain death in children. Task Force for the Determination of Brain Death in Children. Pediatric Neurology 1987; 3:242-243.
- Current concepts: The diagnosis of brain death. The New England Journal of Medicine 2001; 344(16): 1215-1221.
- Practice Parameters: Determining Brain Death in Adults. Neurology 1995;45:1012-1014.
- Sever Brain Injury to Neurological Determination of Death: A Canadian Forum. Canadian council for Donation and Transplantation, April 9-11, 2003, Vancouver, British Columbia.

# Additional Resources

## Links to Additional Resources

American Burn Association: [www.ameriburn.org](http://www.ameriburn.org)

American College of Surgeons – Committee on Trauma: <http://facs.org/trauma/index.html>

American Trauma Society: [www.amtrauma.org](http://www.amtrauma.org)

Association for the Advancement of Automotive Medicine: <http://aaam.org/>

Centers for Disease Control & Prevention, Guidelines for the Field Triage for the Injured Patient: <http://www.cdc.gov/FieldTriage/>

Eastern Association for the Surgery of Trauma: <http://www.east.org/resources/treatment-guidelines/triage-of-the-trauma-patient>

Emergency Nurses Association: [www.ena.org](http://www.ena.org)

Resources for the Optimal Care of the Injured Patient 2006:

<https://web4.facs.org/ebusiness/ProductCatalog/ProductCategory.aspx?id=26>

Society of Trauma Nurses: <http://www.traumanurses.org/>