

**NORTHWEST REGION  
EMERGENCY MEDICAL SERVICES  
& TRAUMA SYSTEM**

**S T R A T E G I C   P L A N**

**July 2009 - June 2012**

Submitted by the Northwest Region EMS and Trauma Care  
Council  
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# CONTENTS

Executive Summary.....	4
<b>Administrative Components</b>	
System Leadership.....	7
System Development.....	13
System Public Information and Education.....	22
System Finance.....	24
<b>Clinical Components</b>	
Injury Prevention and Control.....	26
Pre-Hospital Care.....	30
Acute Hospital Care.....	34
Pediatric Care.....	39
Trauma Rehabilitation.....	41
System Evaluation.....	43
<b>Appendices</b>	
Appendix 1: ..... Approved Minimum/Maximum Numbers of Trauma Verified Services by Level and Type	46
Appendix 2: ..... Trauma Response Areas by County	49
Appendix 3: ..... A. Approved Minimum/Maximum Numbers of Designated Trauma Care Services in the Region (General Acute Trauma Services) by Level B. Approved Minimum/Maximum Numbers of Designated Rehabilitation Trauma Care Services	56
Appendix 4: ..... Regional Patient Care Procedures (PCPs)	58
Appendix 5: ..... July 2009 – June 2012 Regional Plan Gantt	95

# EXECUTIVE SUMMARY

The goals in this document are from the State Strategic Plan and were used during a Northwest Region Strategic Planning session to align the Region with the statewide 2007 – 2012 EMS and Trauma System Strategic Plan. The objectives and strategies were formed by Region and Local council members to be used as a guide during the development of the 2009 – 2012 EMS and Trauma System Region Plan. The following are Regional Goals for each system component:

## **System Leadership**

- There are viable, active regional and local EMS and trauma care councils comprised of multi-disciplinary, EMS and trauma system representation.
- Multi-disciplinary coalitions of private/public health care providers are fully engaged in regional and local EMS and trauma systems.
- Each of the services under the EMS and Trauma System has active, well trained and supported leadership.

In accordance with WAC 246-976-960 the Northwest Region Emergency Medical Services and Trauma Care Council (NWREMS) is the lead agency in the development of a trauma system in Clallam, Jefferson, and Kitsap and Mason counties. The NWREMS and Trauma Council is an incorporated, non-profit organization recognized by the State of Washington and the Federal Government.

Functions of the NWREMS and Trauma Care Council include agency, provider support, training and education, injury prevention and public education, as well as, planning and implementation of a trauma system. Members of the Council represent a cross section of emergency medical service providers including, but not limited to, prehospital provider agencies, health care facilities, communication centers, rehabilitation centers and concerned citizens.

The Region will need to continue to identify multi-disciplinary partners and insure that they are active at Region and Local councils; as well as the EMS and Trauma System. Leadership training will need to be identified and offered to Region and Local council members.

## **System Development**

- There is a strong, efficient, well-coordinated region-wide EMS and Trauma System to reduce the incidence of inappropriate and inadequate trauma care and emergency medical services and to minimize the human suffering and costs associated with preventable mortality and morbidity.
- The Regional Plan is congruent with the statewide strategic plan and utilizes standardized methods for identifying resource needs.
- The Regional EMS and trauma care system has multiple distribution channels (methods, routes, etc.) for timely dissemination of information on emerging issues that have been identified by the Steering Committee.
- The Regional EMS and Trauma System interfaces with emergency preparedness/disaster planning, bioterrorism and public health.
- Region-wide interoperable communications are in place for emergency responders and hospitals.

The Region will need to address administrative and clinical elements of the system identified in the Plan and design a direction for the Region and its' partners during the next three years to obtain the objectives listed. The plan identifies what is currently in place, what is needed, and proposes objectives and strategies toward obtaining the regional goals. The system planning

process uses an inclusive multidisciplinary approach to build a system of appropriate and adequate emergency medical and trauma care.

### **System Public Information and Education**

- There is a regional public information plan consistent with the state public information plan to educate the public about the EMS and Trauma Care System. The purpose of this plan is to inform the general public, decision-makers and health care community about the role and impact of the Regional EMS and Trauma Care System.

EMS and Trauma System providers and partners acknowledge the fact that the general public, political leaders and EMS and Trauma Care System users do not always have an accurate clear understanding of the whole EMS and Trauma Care System at the state, region or local level. Therefore, to enhance public awareness at all levels the regional plan includes educating and informing individuals and groups about the EMS and Trauma Care System. The Region will need to identify a comprehensive information sharing plan and a means for distribution of the information to insure continuing and informed public support of the EMS system.

### **System Finance**

- There is consistent and sustainable funding to ensure a financially viable regional EMS and Trauma Care System.

Consistent sustainable funding has been and continues to be a challenge for all providers involved across the continuum of patient care within the Regional System. The Region and Local councils and the EMS system will need to continue to address operation and project funding and to utilize State funding opportunities, identify and pursue additional funding sources, and review the current distribution of funds.

### **Injury Prevention and Control**

- Preventable/premature death and disability due to injury is reduced through targeted injury prevention activities and programs.

The Regional IPPE Program is focused on a variety of injury prevention activities with a goal of a decreased number of preventable traumatic injuries and deaths. State and regional data directs our prevention activities. Our projects mainly focus on deterring people in the community from risky activities that can cause serious injury or death, such as: drinking and driving, falls in the elderly, children who ride their bikes without helmets, and suicide.

Over the past decade we have seen these statistics change as the demographics and reporting has changed in our region. Whereas we used to focus on DUI prevention and bicycle helmets, we have now seen a need to reprioritize our prevention efforts and focus on senior falls prevention and suicide, in addition to DUI prevention and with a lesser priority on bicycle helmets.

### **Pre-Hospital Care**

- There is a sustainable region-wide prehospital EMS system utilizing standardized, evidence-based procedures and performance measures that address both trauma and medical emergencies.

The prehospital care system consists of dispatch centers, licensed and/or trauma verified prehospital EMS agencies, air medical service, and hospital receiving facilities. The operational coordination of these partners is the foundation of a successful system.

The Region will continue to work with Medical Program Directors and committee members to insure that providers within the region are receiving updated and the most efficient and beneficial direction for optimum patient care through the review and updating of Patient Care Procedures and County Operation Procedures. During the Plan timeline the Region will need to review and evaluate the current min/max numbers for trauma verified agencies and if necessary make a

recommendation to DOH for changes. Training occurring within the region will need continuing evaluation to insure that all providers within the Region are receiving adequate training to meet the needs of the delivery of EMS and Trauma Care services throughout the Region.

### **Acute Hospital Care**

- There is a sustainable region-wide system of designated trauma services that provides appropriate capacity and distribution of resources to support high-quality trauma patient care.

The region-wide system of designated trauma services provides high-quality emergency medical and trauma patient care. The Northwest Region has five designated trauma services within the regional boundaries.

The Region must continue to review current designation levels and make appropriate recommendations based on volume of patients, resources and geographic distribution to avoid gaps in coverage and unnecessary duplication of resources. The Region also needs to identify and provide a communication forum and training opportunities for EMS trauma system and healthcare providers.

### **Pediatric Care**

- There is a sustainable region-wide EMS and Trauma Care System that integrates pediatric care into the system continuum (prevention, prehospital, hospital, rehabilitation and system evaluation).

Pediatric training for EMS providers and continued education for hospital providers is an identified need within the Region and resources will be identified and training provided during the course of the Plan.

### **Trauma Rehabilitation**

- There is a sustainable region-wide system of designated trauma rehabilitation services that provides adequate capacity and distribution of resources to support high-quality trauma rehabilitation care.

Most trauma rehabilitation occurs outside the boundaries of the Northwest Region. The Region will need to identify available resources and share that information to providers throughout the Region to insure the continuum of care.

### **System Evaluation**

- The Regional EMS and Trauma Care System has data management capabilities to support evaluation and improvement.
- The EMS and Trauma Care System has comprehensive, data-driven quality improvement (QI) processes at the local and regional levels.

Prehospital EMS providers, Medical Program Director's and the region's designated trauma facilities are active members of the Northwest Region Quality Improvement (QI) Committee. Through the Committee system efficiencies and issues are identified and action plans are recommended to trauma care providers.

The need for usable comprehensive system-wide data is a recognized issue for the Region and its providers to use in improved patient care techniques and for planning purposes.

**REGIONAL SYSTEM**  
**GOALS – OBJECTIVES – STRATEGIES**  
**JUNE 2009 – JULY 2012**

*ADMINISTRATIVE COMPONENTS*

**SYSTEM LEADERSHIP**

In accordance with statutory authority RCW 70.168.00 – RCW 70.168.130 and WAC 246-976-960 the Northwest Region Emergency Medical Services and Trauma Care Council is the lead agency in the development of a trauma system in Clallam, Jefferson, Kitsap and Mason counties. The Northwest Region EMS and Trauma Care Council is an incorporated, non-profit organization recognized by the State of Washington and the Federal Government.

Council members represent private and public healthcare providers across the EMS and Trauma Care System.

The Northwest Region EMS and Trauma Care Council structure consists of membership from the following counties:

- Clallam
- Jefferson
- Kitsap
- Mason; and
- West Olympic Peninsula, which includes West Clallam County and West Jefferson County.

The Northwest Region EMS and Trauma Care Council structure is composed of forty representatives and thirty-four alternates.

Membership consists of the following per Local council:

- Two local council member representatives
- One pre-hospital representative
- One healthcare representative with hospitals determining the category of their representation
- One communications representative

- One rehabilitation facility representative.

Regional positions shall consist of:

- Four Medical Program Directors, one from each county within the Region with no alternates;
- One Local Elected Official Representative
- One Consumer Representative
- One National Park Service/Forest Service Representative
- One Coast Guard Representative
- One Naval Hospital Representative; and
- One Law Enforcement Representative.

The Northwest Region endeavors to avoid duplication of effort and increase productivity by collaborating and cooperating with agencies located within and outside the region.

The following military installations located within the Northwest Region; work closely with their appropriate Local EMS Council.

- Puget Sound Naval Station
- Naval Submarine Base-Bangor
- Naval Hospital-Jackson Park
- Naval Undersea Warfare Center-Keyport
- Olympic National Park
- U.S. Coast Guard

The Northwest Region continues to partner with Public Health, representatives from the military, Native American tribes, Department of Emergency Managements, health districts, and hospitals towards a goal of a cohesive region-wide planning process. To continue to build on this continuum of care the Region will facilitate the exchange of information between all of these various agencies as well as coordinating training and exercises across county and regional lines; this will not only allow agencies to save money but it will build camaraderie among the various providers. The Northwest Region will also partner with Public Health to continue coordination of the formation of a Region 2 Healthcare Coalition that will function as a single entity to maximize medical surge capacity and capability and resource sharing within Region 2 should a catastrophic event occur.

The Region will maintain a focus on preparedness planning by using lessons learned during the closure of the Hood Canal Bridge. The planning process brought together the DOH, Department of Transportation, EMS agencies, Airlift Northwest, regional hospitals, Washington State Patrol, and other entities to mitigate the effect the bridge

closure. This process and multi-disciplinary partnerships formed can be used if future disasters occur or access to the Olympic Peninsula is compromised.

To accomplish Goals number 1 - 3 the following will need to be addressed:

- ❖ Review current bylaws to assure membership categories align with WAC and allow participation by those who provide the continuum of care within the Region.
- ❖ Create and provide a new member introductory handbook. Determine how to best utilize the Region's website and newsletter to inform and engage council members.
- ❖ Identify with the partnership of DOH and Regional Advisory Committee members leadership resources and training programs that include specific EMS and Trauma components.
- ❖ Establish a training schedule of leadership courses to ensure that all Region and Local council members have the opportunity to receive training.
- ❖ Provide a forum at Regional Council meetings that encourages local council and agency discussion of system planning and development issues.
- ❖ Maintain ongoing contact with Local councils by staff attendance and participation at their meetings.

# SYSTEM LEADERSHIP

## - Goal #1 -

There are viable, active local and regional EMS and trauma care councils comprised of multi-disciplinary, EMS and trauma system representation.

<p><b>Objective 1:</b> By June 2010, Region and Local Councils will review current membership categories to insure that active participation across multi-disciplinary lines within Region and Local councils is met.</p>	<p><b>Strategy 1.</b> By January 2010 Region and Local Councils will review bylaws to assess current membership categories and appropriate WAC requirements to determine gaps and establish additional membership categories as needed and strategically important.</p>
	<p><b>Strategy 2.</b> By May 2010 bylaws reflecting new membership categories will be approved by Region and Local Council members.</p>
	<p><b>Strategy 3.</b> By June 2010 Region and Local Councils will submit copies of approved bylaws to the Region office.</p>
<p><b>Objective 2:</b> By January 2011, have active representation of all membership categories.</p>	<p><b>Strategy 1.</b> By January 2010 the Region will determine how to best utilize the website and newsletter to inform and engage Council members in regional activities.</p>
	<p><b>Strategy 2.</b> By January 2011 Region and Local Councils will start actively recruiting to fill membership categories.</p>
<p><b>Objective 3:</b> By April 2011 new and existing members of the Region and Local Council will be invited to participate in a Region sponsored Planning Retreat.</p>	<p><b>Strategy 1.</b> By November 2010 Region and Local Council will appoint members to assist with identifying topics for the Planning Day Retreat.</p>
	<p><b>Strategy 2.</b> By January 2011, Region staff will distribute invitations to Region and Local council members to attend Planning Retreat.</p>
	<p><b>Strategy 3.</b> By April 2011, a Region and Local Council Planning Day Retreat will be held to discuss membership retention and leadership training.</p>

## SYSTEM LEADERSHIP

### - Goal #2 -

Multi-disciplinary coalitions of private/public health care providers are fully engaged in regional and local EMS and trauma systems.

**Objective 1:**

By January 2011 Region and Local councils will identify key groups in the Region and will maintain current relationships and continue to build new relationships to utilize in engaging new membership.

**Strategy 1.**

By January 2011 the Region Council will continue collaborative activities, needed projects and planning efforts with regional stakeholders, to include, but not be limited to EMS agencies, DEM, hospitals, U.S. military, and public health.

**Strategy 2.**

By April 2011 the Region staff will identify through collaboration with the Regional Advisory Committee and literature research tools for regional and local councils to use in informing and engaging membership in regional activities.

## SYSTEM LEADERSHIP

### - Goal #3 -

Each of the services under the EMS and Trauma System has active, well trained and supported leadership.

<p><b>Objective 1:</b> By January 2011 Region and Local council members will participate in regionally sponsored training and leadership programs.</p>	<p><b>Strategy 1.</b> By May 2010 Region Council members will review identified leadership resources and training programs that include specific EMS and Trauma components and review for regional use.</p>
	<p><b>Strategy 2.</b> By January 2011 the Region Council will provide training schedules to ensure that all Region and Local Council members have the opportunity to receive training.</p>
<p><b>Objective 2:</b> By September 2010 the Region Council will make a forum available at Region Council meetings for local agency discussion of system planning and development to maximize region-wide consistency.</p>	<p><b>Strategy 1.</b> By January 2010 the Region Council will encourage local agency discussion of system planning and development issues at Region Council meetings.</p>
	<p><b>Strategy 2.</b> By September 2010 Region Council will add specific local system planning and development issues to the Region Council meeting agenda on an as-needed basis.</p>
<p><b>Objective 3:</b> To provide Local Council members consistent Regional leadership throughout the life of this plan.</p>	<p><b>Strategy 1.</b> During July 1, 2009 through June 30, 2012 ongoing contact with Local Councils will be maintained by Region staff through regular attendance and participation at Local Council meetings.</p>

## SYSTEM DEVELOPMENT

The Northwest Region EMS and Trauma Care Council is committed to a region-wide multidisciplinary system that parallels the State of Washington's EMS and Trauma Care System's continuum of care.

The Regional EMS and Trauma System Plan provides a guiding document for the next three years and proposes objectives and strategies toward obtaining the regional goals listed within the Plan.

Our system planning process applies a multidisciplinary planning approach to build a system of appropriate and adequate trauma and emergency care that minimizes human suffering and cost associated with preventable mortality and morbidity. The Regional Plan is congruent with the statewide strategic plan.

Council members appointed by the Secretary of the Department of Health and Region Council staff, participate in multiple groups and committees as follows:

- Steering Committee
- Technical Advisory Committees (TAC)
  - Regional Advisory
  - Pediatric
- - Injury Prevention and Public Education
- Education and Training Committee
- Licensing & Certification Committee
- Cardiac and Stroke TAC
- and others as apply

To consistently continue to improve the system a consistent mechanism of information sharing across the region is imperative. To create this awareness and a means to sharing information between system providers and partners as important issues emerge the following are sub-committees of the Regional Council:

### **Training/Education/Development (TED) Committee**

The Regional Councils TED Committee members are representatives from prehospital agencies located within the Northwest Region and regional Medical Program Director's. They assist in the development and revisions of Northwest Region Protocols, OTEP and Patient Care Procedures; as well as other training related matters, addressing areas of need and future direction of prehospital training for the region.

### **QI Committee**

This committee membership consists of representatives from each of the five trauma designated hospitals located within the Northwest Region. They are Olympic Medical Center in Port Angeles, Jefferson Healthcare in Port Townsend, Harrison Medical Center in Bremerton, Mason General Hospital in Shelton and Forks Hospital in Forks. This group also includes MPD's and pre-hospital providers and is the core of a group that conducts Quality Improvement reviews and participates in the ongoing process of updating Patient Care Procedures. The QI Committee holds an annual conference where statistics derived from WA State Trauma System data are disseminated and the Northwest Region is looked at as a whole and then individually by county.

### **Communications Committee**

The Regional Council's Communications Committee consists of members that are involved with their agency's communications systems and members of E911 systems from throughout the region. Their task is to identify communication systems weaknesses within their own agencies and region-wide communication problems with an ultimate goal of Region-wide interoperability of communication systems. Once these weaknesses are identified they work together to determine a solution to the problem and to present those findings to the Northwest Region EMS Council.

### **Executive Committee**

The Executive Committee of the Regional Council consists of the present Chairperson, Vice-Chairperson, Secretary/Treasurer, most recent past Chairperson and two At-Large members. They fulfill a decision making process on behalf of the Northwest Region EMS Council to help meet the goals and objectives of the Regional Plan.

### **Funding Committee**

Regional Council Funding Committee members, in conjunction with the Executive Committee members, are tasked with the review of annual training requests and office operations budgets and to form a recommendation for the Northwest Region EMS and Trauma Care Council to help meet the goals and objectives of the prehospital portion of the Regional Plan.

### **Military & Affiliated Agencies**

The following military installations located within the Northwest Region; work closely with their appropriate Local EMS Council.

- Puget Sound Naval Station
- Naval Submarine Base-Bangor
- Naval Hospital-Jackson Park
- Naval Undersea Warfare Center-Keyport

In Clallam County, the Olympic National Park, Search and Rescue and the Coast Guard hold membership positions on the local council.

- Olympic National Park
- U.S. Coast Guard

To accomplish Goals number 4 -8 the following will need to be addressed:

- ❖ By July 2009 the Region will need to have an approved 2009 – 2012 Regional Trauma Plan to use as guidance for building a better system during the term of the Plan.
- ❖ Progress will need to be monitored by review of bimonthly reports by Region and Local council members.
- ❖ Analysis will need to be conducted to determine what types of data are available for use in system planning and patient outcomes to measure the effectiveness of the system.
- ❖ Data sources will need to be identified and considered for use in the writing of the 2012 – 2017 Trauma Plan.
- ❖ Access to telehealth/telemedicine technologies will need to be surveyed and available information provided to Region and Local council members and partners.
- ❖ The 2012 – 2017 Trauma Plan will need to be congruent with the statewide strategic plan and will utilize standardized methods for identifying resource needs.
- ❖ Regional Patient Care Procedures will need to be reviewed, revised and updated with input from Region and Local council members; and sub-committee members. Regional recommendation of revised Patient Care Procedures will be submitted to Department of Health for approval.
- ❖ The Region Council will need to continue to collaborate with all partners to assure that the Regional EMS and Trauma System will interface with emergency preparedness/disaster planning, bioterrorism and public health during a catastrophic event.
- ❖ Region-wide interoperable communications capabilities will need to be assessed, gaps identified and a recommendation formulated for distribution to appropriate sources and partners.
- ❖ Recommendations will need to be addressed via objectives and strategies during the 2012-2017 planning cycle.

# SYSTEM DEVELOPMENT

## - Goal #4 -

There is strong, efficient, well-coordinated region-wide EMS and Trauma System to reduce the incidence of inappropriate and inadequate trauma care and emergency medical services and to minimize the human suffering and costs associated with preventable mortality and morbidity.

<p><b>Objective 1:</b> By January 2010 the Region Council will work to strengthen the current comprehensive region-wide EMS &amp; Trauma system by implementing the 2009 – 2012 Plan.</p>	<p><b>Strategy 1.</b> By November 2009 the Region Council will communicate the details of the 2009 – 2012 Plan to the Local Councils and other relevant stakeholders in the region.</p>
	<p><b>Strategy 2.</b> During the period that includes September 1, 2009 to June 30, 2012 the Region Council will monitor progress by a review of bimonthly progress reports and provide assistance as needed.</p>
	<p><b>Strategy 3.</b> During the period that includes September 1, 2009 to June 30, 2012 the Region Council will monitor implementation progress by review of objectives and strategy progress at scheduled Local Council meetings.</p>
	<p><b>Strategy 4.</b> During the period that includes September 1, 2009 to June 30, 2012 the Region Council will review and act on identified changes needed to the Plan during regular council meetings.</p>
<p><b>Objective 2:</b> By September 2011 the Regional EMS &amp; Trauma System plan will be revised and updated to reflect the current needs and status of the system.</p>	<p><b>Strategy 1.</b> Throughout the time period of this Plan the Region Council will periodically review the Objectives and Strategies to determine the need to make revisions to meet current need.</p>
	<p><b>Strategy 2.</b> By January 2011 the Region and Local Councils and their sub-committees will participate in revising and updating the Regional Trauma Plan due for the next period (2012 – 2017).</p>
	<p><b>Strategy 3.</b> By June 2011 Region and Local Councils will review the updated Regional Trauma Plan and make needed changes.</p>
	<p><b>Strategy 4.</b> By September 2011 Region Council members will approve 2012-2017 Regional Trauma Plan prior to</p>

	submission to DOH.
<p><b>Objective 3:</b> By June 2010 with participation by Region QI Committee members will implement a program utilizing quality data, mortality rates, ISS, and patient outcomes to measure the effectiveness of the prehospital system.</p>	<p><b>Strategy 1.</b> By November 2009 an analysis will be conducted by Region staff to determine what types of data are currently available for use in the Region and how the data can be accessed for patient outcomes and inclusion in the 2012-2017 Regional Trauma Plan.</p>
	<p><b>Strategy 2.</b> By February 2010 additional data sources (such as WEMSYS data collected by individual agencies, if possible) will be collected by Region staff and considered for use in the Regional Trauma Plan.</p>
	<p><b>Strategy 3.</b> By March 2010 all data collected by Region staff and committee members will be included in the Regional Trauma Plan as a way to support the recommendations suggested in the Plan and evaluate the effectiveness of the system.</p>
<p><b>Objective 4.</b> By December 2009 agencies within the Region will utilize available telehealth/telemedicine technologies for training and informational purposes.</p>	<p><b>Strategy 1.</b> By October 2009 a region-wide survey will be conducted by the Region Council and provided to appropriate committee members for their assistance in determining how the telehealth/telemedicine system is currently being used in the Region.</p>
	<p><b>Strategy 2.</b> By December 2009 information on available telehealth/telemedicine services and opportunities will be provided by Region staff to Regional and Local Council members for implementation at the local level for EMS agencies.</p>
	<p><b>Strategy 3.</b> By December 2009 Region staff will provide a link to available telehealth/telemedicine identified opportunities on the Northwest Region website to help further the training and information process.</p>

## SYSTEM DEVELOPMENT

### - Goal #5 -

The Regional Plan is congruent with the statewide strategic plan and utilizes standardized methods for identifying resource needs.

**Objective 1:**

By September 2011 the Region Council will have completed a new EMS & Trauma Strategic Plan for 2012 – 2017 which is congruent with the Statewide Strategic Plan.

**Strategy 1.**

By November 2010 the new Region Plan format will be presented at Region and Local Council meetings so that all participants and committee members will be able to participate in the planning process.

**Strategy 2.**

By January 2011 the Region Council will host a strategic Planning meeting for Region and Local Council members and other system partners and will include a SWOT analysis and long range population growth projections.

**Strategy 3.**

By March 2011 the current DOH Region Plan format will be used when revising and updating the Regional Trauma Plan for 2012-2017.

**Strategy 4.**

By September 2011 the Region and Local Councils will review and approve the 2012-2017 Trauma Plan draft for a timely submission to DOH.

**- Goal #6 -**

The Regional EMS and trauma care system has multiple distribution channels (methods, routes etc.) for timely dissemination of information on emerging issues that have been identified by the Steering Committee.

<b>Objective 1:</b> By December 2009 Region and Local Councils will identify existing distribution channels for use in timely distribution of Steering Committee & TAC information to regional stakeholders on emerging issues and will develop and implement an information distribution process.	<b>Strategy 1.</b> By September 2009 Region and Local Council representatives will identify <i>or</i> form a group representing all counties within the Region to determine existing information distribution channels.
	<b>Strategy 2.</b> By November 2009 the identified group will develop a process for timely distribution of information on emerging issues.
	<b>Strategy 3.</b> By December of 2009 the identified group will ensure that the emerging issues information dissemination process is implemented within the regional system.

## SYSTEM DEVELOPMENT

### - Goal #7 -

The Regional EMS and Trauma System interfaces with emergency preparedness/disaster planning, bioterrorism and public health.

<p><b>Objective 1:</b> By June 2010 the leadership in the EMS and trauma system will continue and strengthen the current collaboration activities with the regional leadership of emergency management, the public health emergency preparedness network, and the public health system to include joint meetings and mutual projects.</p>	<p><b>Strategy 1.</b> By December 2009 the Region Council will collaborate with the local and regional Departments of Emergency Management to identify needed projects.</p>
	<p><b>Strategy 2.</b> By January 2010 the Region Council will invite local and regional DEM personnel to participate at a Region Council.</p>
	<p><b>Strategy 3.</b> February 2010 Region Council staff will participate in a meeting with Public Health Emergency Preparedness Region 3 and Region 4 to discuss cross boundary planning, training and coordination for EMS agencies.</p>
	<p><b>Strategy 4.</b> By June 2010 the Region Council will collaborate with regional and local public health offices to complete identified projects.</p>
<p><b>Objective 2:</b> By November 2011 the Region Council will adopt a Regional All-Hazards Preparedness Plan.</p>	<p><b>Strategy 1.</b> By October 2010 the Region Council will take the lead in development of a Regional All-Hazards Preparedness Plan which will include resource identification, management, and sharing throughout local and regional jurisdictions.</p>
	<p><b>Strategy 2.</b> By November 2010 the Region Council will form a workgroup for the purpose of writing an All-Hazards Preparedness Plan.</p>
	<p><b>Strategy 3.</b> By December 2010 the Region Preparedness workgroup will collect copies of all local plans for inclusion in the Regional All-Hazards Preparedness Plan.</p>
	<p><b>Strategy 4.</b> By January 2011 the Regional All-Hazards Preparedness Plan Workgroup will meet to start Plan compilation process.</p>
	<p><b>Strategy 5.</b> By October 2011 the planning group will have completed the Regional All-Hazards Preparedness Plan.</p>

	<p><b>Strategy 6.</b> By March 2012 Region and Local Council members will participate in an Exercise/Drill to test the Regional All-Hazards Preparedness Plan.</p>
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## SYSTEM DEVELOPMENT

### - Goal #8 -

Region-wide interoperable communications are in place for emergency responders and hospitals.

**Objective 1:**

By June 2010 interoperable communications gaps between emergency responders and hospitals will be identified and distributed to Region and Local Council members for inclusion in future funding and addressed as available resources allow.

**Strategy 1.**

By January 2010 Region Staff and the Region's Communication Committee will conduct an assessment to determine which types of interoperable communication systems are currently in place within the Region.

**Strategy 2.**

By April 2010 the Region Council will distribute the list of communication systems gaps identified in the assessment.

**Strategy 3.**

By June 2010 recommendations to address the identified needs and gaps will be formulated by the Region's Communication Committee via the development of objectives and strategies for the Northwest Region's 2012 – 2017 EMS and Trauma System Plan.

## SYSTEM PUBLIC INFORMATION & EDUCATION

The EMS and Trauma System providers recognizes the fact that the general public, political leaders and other EMS and Trauma Care System stakeholders from different roles do not always have an accurate clear understanding of the whole EMS and Trauma Care System at the state, region or local level. Therefore, the regional plan includes educating and informing individuals and groups about the EMS and Trauma Care System. This includes general public, decision makers and the health care community.

Currently the Region publishes a monthly newsletter that is disseminated to all system-wide partners and interested parties. A second newsletter targeted specifically for Public Health Preparedness and Coalition partners is also published on a monthly basis. Both newsletters, training opportunities, EMS provider Protocols and Patient Care Procedures can also be found on the website at [nwrems.org](http://nwrems.org); as well as Region, DOH and local council information.

To accomplish Goal number 9 the following will need to be addressed:

- ❖ The Regional Council will identify and disseminate information regarding services provided by the Regional EMS office.

## SYSTEM PUBLIC INFORMATION & EDUCATION

### - Goal #9 -

There is a regional public information plan consistent with the state public information plan to educate the public about the EMS and Trauma Care System. The purpose of this plan is to inform the general public, decision-makers and the health care community about the role and impact of the Regional EMS and Trauma Care System.

**Objective 1:**

By May 2011 the Region will identify effective method(s) to disseminate information about the Northwest Region EMS and Trauma System as it relates to the Northwest Region and implement them.

**Strategy 1.**

By September 2010 Region Council will work with the State Regional Advisory Committee (RAC) to develop methods for disseminating information regarding the services provided by the Regional EMS office within the state. Implement the methods when appropriate. By

**Strategy 2.**

March 2011 the Region Council will coordinate with Region and Local Council members to develop methods for disseminating information about the services provided by the Regional EMS and Trauma Care Council within the Region and implement.

**Strategy 3.**

By May 2011 a calendar will be created which will outline the various public information events (mailings, speaking engagements, meetings with public officials) that will take place throughout the Region.

## **There is no Regional Plan goal #10**

### **SYSTEM FINANCE**

Consistent sustainable funding has been and continues to be a challenge for all providers involved across the continuum of patient care within the Regional EMS and Trauma Care System. Existing funding revenues for all EMS levels of participation is obtained from multiple sources but may not meet operation needs. Levies and grants are inherently a temporary funding source and are in ongoing jeopardy. Inconsistent or inadequate funding threatens the stability of the system as a whole. All parts of the system must remain in place for the system to function as planned.

Funding issues and consolidation of manpower and resources has multiple agencies in multiple counties' researching the practicality of consolidating, merging or signing inter-local agreements between agencies to provide the best EMS system for their service areas. Many agencies within the Northwest Region have already completed this process.

The Northwest Region EMS and Trauma Care Council receives grant funding through contracts with Washington State Department of Health for operational funding. The Region Council applies for and has been granted funding for special projects from various sources. The Region Council uses funds to maintain Council operations and to provide funding for Local EMS County Council support, prehospital provider training, and injury prevention and public education (IPPE). Multiple agencies within the Region rely upon receiving funding to assist in the continuing education of the various EMS agencies.

To accomplish Goal number 11 the following will need to be addressed:

- ❖ The Region Council will need to assure appropriate distribution of funding by identifying and analyzing the need for distribution and utilization of financial resources.

## SYSTEM FINANCE

### - Goal #11 -

There is consistent and sustainable funding to ensure a financially viable regional EMS and Trauma Care System.

**Objective 1:**

By February 2010 a Northwest Region stakeholder will participate in the DOH Cost & Reimbursement TAC and report regularly to the Regional Council.

**Strategy 1.**

By February 2010 the Region council will recruit an individual from the Northwest Region to attend the DOH Cost & reimbursement TAC meetings.

**Strategy 2.**

Throughout the time period of this Plan the person attending the Cost TAC will give reports back to the Region Council.

# CLINICAL COMPONENTS

## INJURY PREVENTION & CONTROL

The Northwest Regional Council's Injury Prevention Public Education program is comprised of several projects that target the leading causes of death and disability from injury.

The leading causes of fatal and non fatal injuries in the Northwest Region during 2002-2006 are as follows:

### 2002-2006 Top Four Non-Fatal Injuries in the Northwest Region

1. Falls	6,182
2. Suicide	974
3. Motor Vehicle Crashes	914
4. Poisoning	596

### 2002-2006 Top Four Fatal Injuries in the Northwest Region

1. Suicides	284
2. Falls	224
3. Motor Vehicle Crashes	207
4. Poisoning	175

Over the past decade we have seen these statistics change as the demographics and reporting has changed in our region. Whereas we used to focus on DUI prevention and bicycle helmets, we have now seen a need to reprioritize our prevention efforts and focus more on senior falls prevention and suicide, in addition to DUI prevention and with a lesser priority on bicycle helmets.

We are also focusing our effort on making the injury prevention program more self-sustaining. For example, we utilize the funds received from the Kitsap County DUI Panels that we coordinate to fund many injury prevention activities throughout the entire region. We use grants to fund some of our programs, and work with partner agencies to provide information/programs/handouts that their agencies produce (such as Mr. Yuk stickers from the Washington Poison Center and the SAIL booklets from the state falls prevention program) as a way to provide this vital information to the citizens in our region.

Many prevention activities in the Northwest Region are coordinated with organizations, committees and non-profits located in the Region including:

- Kitsap Safe Kids
- Kitsap County Traffic Safety Task Force
- Kitsap, Mason, Clallam and Jefferson County Health Districts
- Navy and Coast Guard
- Kitsap, Mason, Clallam, and Jefferson County Fire Districts
- Mary Bridge Hospital
- Harrison Hospital
- Olympic Medical Center
- Forks Hospital
- Jefferson General Hospital
- Mason General Hospital
- Mothers Against Drunk Driving
- Mason County Inter-Agency
- Mason County Department of Emergency Management
- Kitsap Child Death Review
- Kitsap Suicide Prevention Task Force
- Mesa Redonda de Kitsap

The Northwest Region EMS Council has contracted and will continue to contract all Prevention Programs to an outside contractor. This has proven during the past three years to be a very effective arrangement.

To accomplish Goal number 12 the following will need to be addressed:

- ❖ Injury and death data will need to be used as a resource for Region and Local council injury and prevention program development.
- ❖ Injury and death data will need to be used as a resource for Region and Local council injury prevention projects.
- ❖ Best practices will need to be researched and implemented as the basis for injury prevention initiatives in the Region.
- ❖ The proven and most popular injury reduction and education programs will need to continue within the Region to help significantly decrease the incidence and severity of injuries.

# INJURY PREVENTION & CONTROL

## - Goal #12 -

Preventable/premature death and disability due to injury is reduced through targeted injury prevention activities and programs.

<p><b>Objective 1:</b> By November 2009 the Region Council will have an active Regional Injury Prevention Committee.</p>	<p><b>Strategy 1.</b> By September 2009 the Region Council will contact Region and Local Council membership to solicit members for the Northwest Region Injury Prevention Committee.</p>
	<p><b>Strategy 2.</b> By November 2009 the Region Council will activate a Northwest Region Injury Prevention Committee.</p>
<p><b>Objective 2:</b> During the 09-12 Plan cycle the Injury Preventions Coordinator will work with stakeholder groups to utilize data and information to guide implementation and continuation of evidence based injury prevention in the Region.</p>	<p><b>Strategy 1.</b> During the 09-12 Plan Cycle the Regional IPPE Coordinator and IPPE sub-committee will participate in local and regional injury prevention meetings and programs as a way to provide information to community partners, share resources and collaborate in injury prevention efforts</p>
	<p><b>Strategy 2.</b> By January 2010 best practices will be researched by the Regional IPPE Coordinator and implemented as the basis for the injury prevention initiatives in the Region.</p>
	<p><b>Strategy 3.</b> Annually injury and death data will be used to guide Region and Local Council injury prevention programs and development of the 2012-2017 EMS and Trauma Plan.</p>
<p><b>Objective 3:</b> By April 2010 through ongoing information sharing by Region staff, ensure that prehospital providers, designated trauma service staff and other prevention professionals will be up to date on injury prevention interventions that can be started or incorporated into ongoing programs.</p>	<p><b>Strategy 1.</b> By October 2009 the Region Council's IPPE sub-committee will work with Region and Local Council members to implement basic injury prevention strategies region-wide.</p>
	<p><b>Strategy 2.</b> By January 2010 the Region's IPPE Coordinator, Training Coordinator, TED and QI Committee members will ensure that basic injury prevention interventions will be included in Regional and Local OTEP programs.</p>
	<p><b>Strategy 3.</b> By March 2010 the Regional IPPE Coordinator and IPPE sub-committee will continue to participate in local and regional injury prevention meetings and programs as a way to provide information to community partners,</p>

	share resources, and collaborate in injury prevention efforts.
	<p><b>Strategy 4.</b> By March 2010 the Regional IPPE Coordinator and IPPE sub-committee will work with the state IPPE TAC to coordinate region-wide injury prevention initiatives that overlap with state-wide injury prevention goals.</p>
<p><b>Objective 4:</b> By June 2012 the Region Council will work to decrease the incidence and severity of injuries by coordinating a multi-faceted injury prevention educational program.</p>	<p><b>Strategy 1.</b> Annually, the IPPE Coordinator will identify the leading cause of preventable injury and death in the region and recommend evidence based best practices to fund or support injury reduction programs in the Region, to include DUI Panels, the bicycle helmet program, the falls prevention program, the Trauma Nurses Talk Tough program, the suicide prevention program, and the child safety seat program.</p> <p><b>Strategy 2.</b> Annually the IPPE Committee will measure the rate of change in the incidence of the region's tracked injuries using DOH data to identify changes for reduction in severity of injury.</p>

## PREHOSPITAL

A sustainable region-wide prehospital EMS system utilizing standardized, evidence-based procedures and performance measures that address both trauma and medical emergencies is a principal goal of the Northwest Region EMS and Trauma Care system. The Washington Emergency Medical Services Act of 1990 declared that a trauma care system, one which delivers the “right” patient to the “right” facility in the “right” amount of time, would be cost effective, assure appropriate and adequate care, prevent human suffering and reduce the personal and societal burden that results from trauma.

Recruitment/retention and education/training is an ongoing need within the Region. Recruitment, retention, initial and ongoing training of personnel is imperative to maintain quality patient care and an ongoing issue in the regional system. This challenges rural areas because fewer resources are available in rural areas to meet the increasing demand on volunteers to maintain EMS certification and skill levels.

Demographically, the Northwest Region has a very large volunteer personnel population and coupled with geographical barriers it is a challenge to meet training needs, especially considering the need for more training due to the advancement of the EMS system, and the time limitations of the volunteer population.

A vital component of recruitment and retention efforts is making initial and continuing training opportunities available to all Northwest Region EMS providers. The Northwest Regional EMS & Trauma Care Council assists agencies in meeting their personnel recruitment, retention, and training needs in a variety of ways.

The recommended Northwest Region Ongoing Training and Evaluation Program (OTEP) is provided through the State approved King County OTEP program. Annual Train the Trainer and Evaluator courses are offered at the Regional Training Symposium. The Region also hosts DOT Instructor courses and a Pediatric Conference.

Even with training assistance a good part of the volunteer pool is still being lost. Under its role in regional coordination the Northwest Regional Council’s office staff continually supports agencies and personnel by educating them how the Washington DOH EMS system works throughout the process of becoming a certified provider and maintaining that certification. Assistance begins with course applications, approved funding reimbursement, instructor resources, training equipment resources, course completion examinations and continuing education

There are a number of SEIs and EMS Evaluators in the Northwest Region, however, they are not equally distributed throughout the Region and in the most rural areas there are very few instructors. These training activities, while always accomplished through cooperative efforts, often tax the time of the evaluators/instructors.

Recruitment and retention of qualified personnel is an ongoing need in rural areas. This is due in part to the evolution of the EMS profession in which the personnel base is evolving from a volunteer pool to full time professional EMS providers. This process incorporates and updates new hires into the existing system and allows for refresher training for existing instructors. The cost for initial training and all ongoing continuing medical education of personnel is borne by individual agencies and supplemented by Northwest Regional Council Grant funds. Because funding is an ongoing issue agencies are advised and encouraged to seek funds through the DOH Needs Grants and other outside sources to help fund training courses and training equipment.

The Northwest Region EMS and Trauma System operations are based on Regional Patient Care Procedures, and County Operating Procedures. As defined in RCW 18.73.030. Patient Care Procedures (PCP's) is the written operating guidelines adopted by the Northwest Region EMS and Trauma Care Council, in consultation with the Local EMS and Trauma Care Councils, emergency communication centers, and EMS Medical Program Director (MPD), in accordance with statewide minimum standards. The patient care procedures shall identify the level of medical care personnel to be dispatched to an emergency scene, procedures for triage of patients, the level of trauma care facility to first receive the patient, the name and location of other trauma facilities to receive the patient should an interfacility transfer be necessary. County Operating Procedures (COPs) may be developed to address county specific issues related to patient care procedure. Periodic review and update of the Regional Patient Care Procedures and County Operating Procedures will maintain system stability over time.

To accomplish Goal number 13 the following will need to be addressed:

- ❖ The Regional Patient Care Procedures will need to be reviewed and updated.
- ❖ Each Local County Council will need to review their prehospital system needs and provide a recommendation on minimum/maximum numbers of prehospital trauma verified services to the Region Council.
- ❖ Prehospital EMS local provider training needs and Regional system-wide provider needs will need to be identified including financial support from the Council.

## PREHOSPITAL

### - Goal #13 -

There is a sustainable region-wide prehospital EMS system utilizing standardized, evidence- based procedures and performance measures that address both trauma and medical emergencies.

<p><b>Objective 1:</b> By November 2010 the Region Council will review the Regional Patient Care Procedures and County Operating Procedures for the most efficient and beneficial handling of patients.</p>	<p><b>Strategy 1.</b> By March 2010 the Region Council will task the Training, Education and Development Committee (TED), the QI Committee and the MPD's to review and update Regional Patient Care Procedures (PCP's).</p>
	<p><b>Strategy 2.</b> By May 2010 the TED and QI Committees, MPD's and Region staff will develop a timeline to review and update Regional Patient Care Procedures.</p>
	<p><b>Strategy 3.</b> By May 2010 the Region will receive revised and updated County Operating Procedures for each county.</p>
	<p><b>Strategy 4.</b> By November 2010 the Region Council will adopt the revised Regional Patient Care Procedures.</p>
<p><b>Objective 2:</b> Bi-annually, Medical Program Directors will provide ongoing medical oversight of EMS &amp; trauma system prehospital care delivery as defined in RCW and WAC.</p>	<p><b>Strategy 1.</b> By May 2010 Northwest Region MPD's will participate in an annual Regional MPD meeting.</p>
	<p><b>Strategy 2</b> By June 2011 the Regional Protocols will be reviewed and updated, if necessary, by the MPD's with the assistance of the Protocol Committee.</p>
<p><b>Objective 3:</b> Regional website will keep regional providers apprised of ongoing Regional and local training opportunities.</p>	<p><b>Strategy 1.</b> A weekly website training calendar will be updated by Region staff with information on all local, regional, and state training opportunities.</p>
<p><b>Objective 4:</b> By June 2010 the recommended min/max numbers of trauma verified services will be evaluated and updated by local county councils and approved by the Regional Council for recommendation to DOH.</p>	<p><b>Strategy 1.</b> By January 2010 the Region Council's TED and QI Committees will meet to start the evaluation of need and necessity for prehospital services based on population, demand and current resource availability. Utilizing historical field data, changing prehospital requirements and policy needs.</p>
	<p><b>Strategy 2.</b> By March 2010 the Region and Local Councils will review the findings of the need and necessity data for prehospital services and evaluate the findings to form a</p>

	<p>recommendation for changes to existing min/max numbers.</p>
	<p><b>Strategy 3.</b> By June 2010 Region Council will review local and Committee findings for approval and recommendation for changes to the Department of Health.</p>
<p><b>Objective 5:</b> By May of each year, the Region Council will identify the needs and allocate available funding to support prehospital training.</p>	<p><b>Strategy 1.</b> Annually, during the months of January, February and March, the Region Council will conduct a survey of agencies to identify current training needs.</p>
	<p><b>Strategy 2.</b> Annually, by April, training needs will be reviewed by Region Council Executive and Funding Committee members and a draft training budget will be approved for recommendation to the Region Council.</p>
	<p><b>Strategy 3.</b> Annually, by May, Region Council will vote on training budget recommendation approved by Executive and Funding Committee members.</p>
	<p><b>Strategy 4.</b> Annually, by November, the Region Council will provide contracts to Local Council for approved training requests and a mechanism for requesting training payments.</p>

## ACUTE HOSPITAL

There are five hospitals in the Northwest Region providing emergency healthcare to the public. The five are evenly spaced throughout the region and each has their own catchment area. Each also serves as the area base station respectively. All five are designated trauma centers.

**Forks Community Hospital** - Forks, Clallam County, is located on the western edge of Clallam County. They also serve part of West Jefferson County. Forks Community Hospital is designated as a Level IV Trauma Center. Due to the distance to travel to a higher-level trauma center, most patients are brought to Forks Community Hospital for stabilization and transferring out, weather permitting. There currently is one general surgeon in Forks. He does not specialize in trauma surgery nor is he available 24/7. Therefore, major trauma surgery cases will be transferred. Minor to moderate trauma cases are transferred to Olympic Memorial Hospital in Port Angeles. Major trauma cases are usually airlifted to Harborview. Flight time to Forks Airport from Seattle is forty-three minutes. Then a forty-three minute return flight back to Harborview eliminates the golden hour for patients.

Patient transfers must be well planned since there are no healthcare facilities located between Forks and Port Angeles. There is no one to assist if the patient's condition deteriorates while en route to Port Angeles.

The airfield at Forks does not have Instrument Flight Reading (IFR) capabilities; therefore, air ambulances cannot land in inclement weather. The closest airfield that is IFR is in Port Angeles, which requires an additional ninety minutes of ground transport. Ground ambulances must travel Highway 101 which can delay the transport or stop it entirely if there is a problem with the road around the Crescent Lake. These problems range from a tree across the road to a rockslide or ice and snow. Olympic National Park staff maintains the road. It takes time to gather the resources to resolve blocking problems. This can take several hours to days to complete. There are no alternate roads around Crescent Lake without backtracking thirty-five miles and accessing Highway 112, which has a tendency to wash out or also become blocked with downed trees.

**Olympic Medical Center**- Port Angeles, Clallam County, is located at the north edge of the central part of the county. Olympic Medical Center is designated as a Level III Trauma Center. They have surgical capabilities that Forks Community Hospital does not have, so they receive many patients from Forks. Like Forks Community Hospital, the distance from Seattle means that major trauma patients are brought to Olympic Medical Center for stabilization and then flown to a higher-level trauma center that meets the needs of the patient. Olympic Medical Center has a helicopter-landing pad on its campus, which facilitates the transfer of patients to the helicopter directly from the Emergency Department. If weather conditions are poor, the air ambulance can land at the

airport in Port Angeles requiring an additional fifteen minutes for ground transport of the patient to the airfield.

The Coast Guard Air Station in Port Angeles also has IFR and can serve as a safe landing site for the air ambulance during poor weather conditions.

**Jefferson Healthcare** - Port Townsend, Jefferson County. Jefferson General Hospital has grown into a fully integrated health care system. They are a Level IV designated Trauma Center. Jefferson Healthcare is located at the northeast portion of the county. This means that all but the patients originating in Port Townsend must be ground transported from just a few miles to over forty miles over roads that can be closed for a variety of reasons.

Major trauma patients are transferred out to the appropriate hospital in the Seattle area. Jefferson General Hospital has a heliport on the roof of its facility, and this expedites the transfer of patients from the Emergency Department to the air ambulance.

Air flight time from Seattle to Jefferson Healthcare is roughly twenty-five minutes one way under ideal conditions. If the conditions are less than ideal, the patient must be ground transported to Seattle. The airport in Port Townsend is not IFR.

**Harrison Medical Center** - Bremerton, Kitsap County. Harrison Medical Center is designated as a Level III Trauma Center. Harrison Medical Center is located in Central Kitsap County. Harrison Silverdale, located in Silverdale, provides treatment of women and children, same-day surgery center, 24-hour emergency care and as a rehabilitation service. Harrison South Kitsap located in Port Orchard, provides urgent care and services by appointment. Harrison is currently constructing a urgent and primary care facility in Belfair, with an expected opening date in early 2009. Harrison primary care, urgent care and outpatient cancer center is also planned for Poulsbo.

It is possible to have an air ambulance on the ground in most of Kitsap County within ten minutes; the exception would be the extreme western edge in the Hood Canal area. This allows for the patient to be at Harborview well within the golden hour provided there is not a prolonged extrication or rescue.

**Naval Hospital – Bremerton (NHB)** is a relatively small hospital with limited capabilities for acute trauma, emergent surgical, pediatric surgical, vascular, and neuromuscular/spine care. Although NHB has many of the capabilities of a Level III Trauma Center, they are not state designated. NHB services active duty military personnel, their dependents, and retired personnel provided the mechanism of injury or illness is not too severe for the facility. In the event of a regional emergency they will take patients if they have manpower and beds available.

**Mason General Hospital** - Shelton, Mason County. Mason General Hospital is located in the southeastern portion of the county. Mason General Hospital is designated as a Level IV Trauma Center.

Mason General Hospital has surgeons who treat all but the major trauma patients. Major trauma patients are either brought to Mason General Hospital for stabilization and then airlifted out or flown directly from the field based on the location of the patient and the availability of the air ambulance.

Mason General Hospital has a heliport just outside the Emergency Department, which means the patients are brought directly from the Emergency Department to the waiting helicopter. This is an advantage to the patient.

To accomplish Goal number 14 the following will need to be addressed:

- ❖ Review current designation levels and make appropriate recommendations based on volume of patients, resources and geographic distribution.
- ❖ Provide a forum for communication between all of the designated trauma centers in the region.
- ❖ Hold a Regional Training Symposium dedicated to training for representatives from the designated trauma centers in the Region.
- ❖ Hold an annual QI Conference where representatives from the trauma centers in the Region, EMS providers and MPD's will receive training and share learning opportunities.

# ACUTE HOSPITAL

## - Goal #14 -

There is a sustainable region-wide system of designated trauma services that provides appropriate capacity and distribution of resources to support high-quality trauma patient care.

<p><b>Objective 1:</b> By June 2011, regional hospitals will use standardized methods based on volume of patients, available resources (hospital and physician), and geographic distribution to avoid gaps in coverage and unnecessary duplication of resources to recommend min/max numbers for trauma designated services.</p>	<p><b>Strategy 1.</b> By November 2010 hospital leadership will review current designation levels and make appropriate recommendations based on volume of patients, resources and geographic distribution.</p>
	<p><b>Strategy 2.</b> By March 2011 QI Committee members and Medical Program Directors will review and discuss appropriateness of recommendations from designated trauma services.</p>
	<p><b>Strategy 3.</b> By May 2011 Region and Local Councils will review recommendations for designated trauma services for approval and will forward to Washington State Department of Health.</p>
<p><b>Objective 2:</b> The Region will provide bi-monthly open communication with and between designated trauma centers in the Northwest Region resulting in maximizing training and resource sharing.</p>	<p><b>Strategy 1.</b> The Region will provide a forum for hospital providers at a variety of region-sponsored meetings throughout the year.</p>
	<p><b>Strategy 2.</b> By June 2011 Region staff, TED and QI Committee members will organize a Regional Conference at which a portion of the conference will be dedicated to training for representatives from the designated trauma centers in the Region.</p>
	<p><b>Strategy 3.</b> The Region staff and QI Committee members will organize an annual QI Conference at which representatives from all of the trauma centers in the Region, EMS providers and MPD's will be able to receive training and share learning opportunities.</p>
	<p><b>Strategy 4.</b> By During the 09-12 Plan Cycle the Region will list professional training opportunities for hospital providers on the Region's website.</p>

## PEDIATRIC

Pediatric patient care protocols are well established. Currently the nearest pediatric specialty hospitals are Harborview Medical Center which is a Pediatric Level I Trauma Center, Mary Bridge Children's Hospital (Pediatric Level II Trauma Center) located in Tacoma WA, and Seattle Children's Hospital and Regional Medical Center. These facilities are accessible by ground and/or air transport. All of the Northwest region's local hospitals have Pediatricians on staff and support from the local pediatricians.

Pediatric patients make up the minority of EMS and trauma patient calls within the Northwest Region. This lack of pediatric patient contact emphasizes the need for pediatric patient care training. Pediatric training and appropriate training equipment is not readily available within the Northwest Region. Pediatric training is currently addressed through initial training courses, Ongoing Training and Evaluation Programs and the Northwest Region Pediatric Conference.

To accomplish Goal number 15 the following will need to be addressed:

- ❖ Research pediatric emergency and trauma education for prehospital and hospital providers.
- ❖ Survey need for a Pediatric Conference and host conference if need is there.
- ❖ Post all available pediatric training on Region website.

## PEDIATRIC

### - Goal #15 -

There is a sustainable region-wide EMS and Trauma Care System that integrates pediatric care into the system continuum (prevention, prehospital, hospital, rehabilitation and system evaluation).

<p><b>Objective 1:</b> By November 2009 the Region Council will identify and list pediatric emergency medical and trauma education opportunities available for prehospital and hospital providers on the Region's website.</p>	<p><b>Strategy 1.</b> By September 2009 Region staff will identify training opportunities for pediatric emergency and trauma education for prehospital and hospital providers will be researched.</p>
	<p><b>Strategy 2.</b> By October 2009 a list of training opportunities for pediatric emergency and trauma education for prehospital and hospital providers will be included on the Region's website by Council staff.</p>
<p><b>Objective 2:</b> By January 2011, the Region Council will identify the need for pediatric related EMS training in the Region.</p>	<p><b>Strategy 1.</b> By March 2010 Region Council staff, TED and QI Committee members will write a survey to identify the need for pediatric related EMS training for the Region's prehospital and hospital providers.</p>
	<p><b>Strategy 2.</b> By April 2010 the Region staff will distribute the survey to prehospital and hospital providers located within the Region.</p>
	<p><b>Strategy 3.</b> By April 2010 regional staff will research existing funding opportunities.</p>
	<p><b>Strategy 4.</b> By May 2010 the Region staff and TED and QI Committee members will analyze the results of the survey and report to Regional Council members.</p>
	<p><b>Strategy 5.</b> By September 2010 the Regional TED, QI Committee members and staff will begin coordination of a Pediatric Conference.</p>
	<p><b>Strategy 6.</b> By January 2011 the Region Council will host a Pediatric Conference that will meet the needs for pediatric emergency and trauma education for prehospital and hospital providers.</p>

## TRAUMA REHABILITATION

Trauma Rehabilitation is the final step in the completion patient care. Consequently it is at times a forgotten element of the continuum of patient care. However the importance of rehabilitation cannot be understated in the role of giving patients the means to return to an optimal quality of life. Because rehabilitation occurs after initial hospitalization, prehospital providers may not be knowledgeable about the role of rehabilitation or how the care they provide in the field impacts the rehabilitation of injured patients. High quality trauma rehabilitation care is normally provided outside the Region as no designated rehabilitation facilities are located within the Northwest Region. A list of local resources is not readily available.

To accomplish Goal number 16 during the cycle of this Region Plan the following will need to be addressed:

- ❖ Conduct a survey to determine availability of trauma rehabilitation services in the Region.
- ❖ Review current min/max numbers and make recommendation for changes to the Regional Council for planning purposes.

# TRAUMA REHABILITATION

## - Goal #16 -

There is a sustainable region-wide system of designated trauma rehabilitation services that provides adequate capacity and distribution of resources to support high-quality trauma rehabilitation care.

### **Objective 1:**

By October 2010 Hospitals will make recommendations on updates to the min/max numbers and level of designated trauma rehab services in the Region for use in the 2012-17 planning process.

### **Strategy 1.**

By January 2010 a telephone/email survey will be conducted by the Region to determine which trauma rehabilitation services are available to our Region and to identify current needs.

### **Strategy 2.**

By April 2010 survey findings will be distributed by the Region through Local Council meetings to assist in local planning.

### **Strategy 3.**

By October 2010 the QI Committee will review current min/max numbers and make recommendation for changes to the Region Council for planning purposes.

## SYSTEM EVALUATION

Each county within the region has an effective pre-hospital and hospital peer review and/or evaluation program. Case reviews are discussed at the appropriate committee level and then problems or accolades are referred to the MPD and/or county pre-hospital Quality Improvement (QI) Coordinator when applicable. A Northwest Region QI Committee was developed in 1997 and a Northwest Region QI Plan was completed and submitted to DOH in June of 1997. This committee's membership consists of representatives from each hospital located in the region, prehospital representatives from county agencies; MPD's and lay persons involved within the EMS system. The Northwest Region QI Committee meets prior to Northwest Region EMS Council meetings to review prehospital and hospital cases. Historically reviews have been case-based QI; however, during this upcoming biennium we will incorporate overall system performance. Committee members also attend an annual conference. Case reviews and guest speakers are included on the conference agenda and both case and system level QI are addressed.

To accomplish Goal number 17 – 18 the following will need to be addressed:

- ❖ Create a process for retrieving data from the WEMSYS system at the Regional EMS office and a mechanism for dissemination of data to partners.
- ❖ Use data in system-wide planning process.
- ❖ Schedule QI Committee meetings on a bi-monthly or on a regular basis prior to Region Council meetings and request data from DOH to use and support the QI process.
- ❖ Host an annual QI Conference to provide a region-wide forum to discuss QI hospital and prehospital system issues and training needs.

## SYSTEM EVALUATION

### - Goal #17 -

The Regional EMS and Trauma Care System has data management capabilities to support evaluation and improvement.

<p><b>Objective 1:</b> By December 2010 the Region Council will develop, implement and begin monitoring system performance measures in conjunction with state performance measures.</p>	<p><b>Strategy 1.</b> By June 2010 the Region Council's QI Committee will develop an initial set of system performance measure for the Northwest Region.</p>
	<p><b>Strategy 2.</b> By December 2010 the Region Council's QI Committee will implement the identified performance measures.</p>
	<p><b>Strategy 3.</b> By December 2010 the Region Council's QI Committee will develop and implement a system performance measure monitoring process.</p>
<p><b>Objective 2.</b> By November 2010 Region and Local councils will use data from WEMISIS for evaluation and management of patient care and planning for the region-wide EMS system.</p>	<p><b>Strategy 1.</b> By September 2010 a process for retrieving data from the WEMISIS system at the Regional EMS office will be determined by staff.</p>
	<p><b>Strategy 2.</b> By October 2010 data from the WEMISIS system will be provided to the Region and Local councils on a quarterly basis by Region staff.</p>
	<p><b>Strategy 3.</b> By November 2010 data from the WEMISIS system will be regularly used by Region and Local councils for planning purposes.</p>
<p><b>Objective 3.</b> By January 2010 the Region Council will routinely request data from the DOH Trauma Registry provided by the regional hospitals for management of patient care and planning purposes</p>	<p><b>Strategy 1.</b> By November 2009 the Region QI Committee will start requesting data from DOH and the trauma registry for planning purposes at the Regional level.</p>
	<p><b>Strategy 2.</b> By November 2009 data from the trauma registry will be provided to Region and Local councils on a quarterly basis.</p>
	<p><b>Strategy 3.</b> By November 2009 data from the Trauma Registry will be used for Region and Local council planning purposes on an annual basis.</p>

## SYSTEM EVALUATION

### - Goal #18 -

The EMS and Trauma Care System has comprehensive, data-driven quality improvement (QI) processes at the local and regional levels.

**Objective 1.**

By June 2010 the Region QI Committee will implement an updated and functional Quality Improvement Plan based on current Region and Local data.

**Strategy 1.**

Region QI Committee members will meet bi-monthly or on a regular basis prior to Region Council meetings to address comprehensive EMS system issues and will use available regional and local data in their discussions.

**Strategy 2.**

By November 2009 the Region Council's QI and TED Committees will identify data sets to be included during the QI process.

**Strategy 3.**

Quarterly the Region Council's QI Committee members will request data from DOH to use and support the QI process at the regional and local levels.

**Strategy 4.**

Quarterly data reports will be prepared and distributed by Region staff to Local Councils.

**Strategy 5.**

Annually a QI Conference will be held to review DOH provided region-wide data and to discuss QI hospital and prehospital system issues and training needs.

## APPENDICES

### Appendix 1.

Approved Min/Max numbers of Verified Trauma Services by Level and Type by County (repeat for each county)

County (Name)	Verified Service Type	State Approved - <i>Minimum number</i>	State Approved - <i>Maximum number</i>	Current Status (Total # Verified for each Service Type within the whole county)
<b>CLALLAM</b>	Aid – BLS	1	2	1
	Aid – ILS	0	0	0
	Aid – ALS	1	2	1
	Amb – BLS	5	6	4
	Amb – ILS	0	0	0
	Amb - ALS	2	3	2

County (Name)	Verified Service Type	State Approved - <i>Minimum number</i>	State Approved - <i>Maximum number</i>	Current Status (Total # Verified for each Service Type within the whole county)
<b>JEFFERSON</b>	Aid – BLS	1	2	1
	Aid – ILS	0	1	0
	Aid – ALS	0	0	0
	Amb – BLS	5	5	4
	Amb – ILS	1	2	0
	Amb - ALS	2	2	2

<b>County (Name)</b>	<b>Verified Service Type</b>	<b>State Approved - Minimum number</b>	<b>State Approved - Maximum number</b>	<b>Current Status (Total # Verified for each Service Type within the whole county)</b>
<b>KITSAP</b>	Aid – BLS	2	4	1
	Aid – ILS	0	1	0
	Aid – ALS	0	0	0
	Amb –BLS	5	6	3
	Amb – ILS	0	1	0
	Amb - ALS	5	6	6

<b>County (Name)</b>	<b>Verified Service Type</b>	<b>State Approved - Minimum number</b>	<b>State Approved - Maximum number</b>	<b>Current Status (Total # Verified for each Service Type within the whole county)</b>
<b>MASON</b>	Aid – BLS	8	8	7
	Aid – ILS	0	0	0
	Aid – ALS	0	0	0
	Amb –BLS	5	6	5
	Amb – ILS	0	0	0
	Amb - ALS	3	3	3

## **Appendix 2.**

### **Trauma Response Areas by County**

<b>County</b>	<b>Trauma Response Area Number</b>	<b>Description of Trauma Response Area's Geographic Boundaries (description must provide boundaries that can be mapped and encompass the entire trauma response area – may use GIS to describe as available)</b>	<b>Type and # of Verified Services available in each Response Areas</b>
Clallam	#1	The current city limits of Port Angeles (The current response area of Port Angeles Fire Department)	F-1
Clallam	#2	Area surrounding the City of Port Angeles on three sides, South, West and East. Bordered to south by Olympic National Park (The current response area of Clallam County Fire District #2)	D-1
Clallam	#3	Bordered on the west by response area 2, north by the Strait of Juan De Fuca, to the east by Jefferson County, to the south by Olympic National Park. Includes the City of Sequim (The current response area of Clallam County Fire District #3)	F-2
Clallam	#4	Along Highway 112 between Port Angeles and Clallam Bay. Bordered by the Strait of Juan De Fuca, south by Olympic National Park (The current response area of Clallam County Fire District #4)	D-1
Clallam	#5	Clallam Bay area. From mile marker 7 on Highway 112 on the west side, to mile marker 34 on the east (The current response area of Clallam County Fire District #5)	D-1

Clallam	#6	Forks township and surrounding rural/wilderness area (The current response area of Ray-Ellis Ambulance)	D-1
Clallam	#7	The Makah Indian Nation and surrounding wilderness (The current response area of Neah Bay Ambulance)	D-1
Clallam	A	Olympic National Park	A-1; G-1
Clallam	B - O	All areas included in trauma Response Area Number 2 (The current response area of Clallam County Fire District #2)	D-1
Clallam	B	All other areas in Clallam County	A-4
Jefferson	#1	The area between Port Ludlow and Port Townsend and Marrowstone Island (The current response area of Jefferson County Fire District #1)	F-1
Jefferson	#2	Quilcene area bordered on the west by Olympic National Park, north by Highway 104, to the east at mile marker 3 on Coyle Road	D-1; F-1
Jefferson	#3	Easternmost part of County including Port Ludlow, a long stretch of Highway 104, and Hood Canal Bridge response (The current response area of Jefferson County Fire District #3)	F-1
Jefferson	#4	Southeastern portion of the County bordering Mason County to the south and Olympic National Park to the east. Includes long stretch of Highway 101 along Hood Canal (The current response area of Jefferson County Fire District #4)	D-1; F-1
Jefferson	#5	Northwestern Portion of County including Discovery Bay inlet. Bordered on the west by Clallam County (The current response are of Jefferson County Fire District #5)	D-1; F-1
Jefferson	#7	Northern part of the County including the City of Port Townsend. Bordered on the east by Discovery Bay, and the west by the Port of Port Townsend.	D-1; F-1

Jefferson	#8	Ranges from the Coyle Peninsula to Quilcene Bay at mile marker 3 on Coyle Road.	D-1; F-1
Jefferson	A	Olympic National Park	A-1; G-1
Jefferson	B	Fort Warden – Federal land, South and West of the Strait of Juan de Fuca	
Jefferson	C	Indian Island – Federal land surrounded by the Strait of Juan de Fuca	
Jefferson	D	Ft. Flagler – Federal park land, Northern tip of Marrowstone Island	
Kitsap	#1	The Central portion of the county including the City of Silverdale, bordered on the west by the Hood Canal, the east by Port Orchard Bay, to the South by Mason County and has Subase Bangor to the north. (Current response area of Central Kitsap Fire and Rescue)	F-1
Kitsap	#1A	Now to be included in Trauma Response area #1. (Current response area of Central Kitsap Fire and Rescue)	F-1
Kitsap	#2	Bainbridge Island	F-1; D-1
Kitsap	#3	The City of Bremerton	F-1; D-2
Kitsap	#3A	Surrounded by Dyes Inlet to the North and East up to and including the City of Bremerton	F-1; D-2
Kitsap	#5	Navy Base Bangor	D-1; F-1
Kitsap	#7	The South Eastern Portion of the County bordered on the east by Colvos Passage and the Hood Canal, to the north Dyes Inlet and The City of Bremerton, and to the south and east by Mason County (the current response area of South Kitsap Fire and Rescue)	F-1

Kitsap	#10	The northern portion of the County and the Kitsap Peninsula including Kingston, The S'klallam Indian Nation Reservation, the east half of The Port Madison Indian Reservation and Hansville on the northernmost point of the Kitsap Peninsula (the current response area of North Kitsap Fire and Rescue)	F-1
Kitsap	#18	The City of Poulsbo and surrounding areas from Liberty Bay to the Hood Canal on the west (the current response area of Poulsbo Fire Department)	F-1
Kitsap	#18A	South of Puget Sound, west of Bangor Airforce Base Trauma Response area #5 and South to Mt. View Road. Includes the West portion of Pt. Madison Indian Reservation. Up to and including the Trauma Response area #18. (Poulsbo Fire Department)	F-1
Kitsap	A	Keyport Federal Military Base with Puget Sound to the North and East. North of Trauma Response area #1 and south of #10	
Kitsap	#B	Department of Natural Resources land	
Kitsap	#C	Department of Natural Resources land	
Kitsap	#D	State Land	
Kitsap	#E	Blake Island, Tribal Land	
Mason	#1	The Hoodport area, bordered on the West by Olympic National Park and the Lake Cushman area, to the east by the Hood Canal, to the north at Lilliwaup and to the south at Potlatch (the current response area of Mason County Fire District #1)	A-1; D-1; F-1
Mason	#2	Northeastern portion of the county, bordered on the west by the Hood Canal, to the north and east by Kitsap County. Also covers a portion of 106 along the Hood Canal (the current response area of Mason County Fire District #2)	F-1

Mason	#3	The Grapeview area bordered to the east and south by case inlet, to the north and west by Highway 3 (the current response area of Mason County Fire District #3)	D-1; F-1
Mason	#4	The southeastern portion of the county. Bordered on the North by Hammersly Inlet, to the west by the City of Shelton to the south by Thurston County and to the east by Totten Inlet (the current response area of Mason County Fire District #4)	D-1; F-1
Mason	#5	The large central portion of the county, bordered to the south by the City of Shelton and Hammersly Inlet. Covers a long portion of Highway 3 and also contains Harstene Island (the current response area of Mason County Fire District #5)	F-1
Mason	#6	Union area along the Hood Canal to the north and bordered by the Skokomish Tribal Reservation on the west.	D-1; F-1
Mason	#8	The Tahuya area bordered on 3 sides by the Hood Canal (the current response area of Mason County Fire District #8)	D-1; F-1
Mason	#9	Covers the west-central portion of the county, from Potlatch to the southern end of the Skokomish Tribal Reservation. Bordered on the west by Olympic National Forest (the current response area of Mason County Fire District #9)	A-1; D-1; F-1
Mason	#11	Northwest of the City of Shelton, includes a portion of Highway 101 and Sanderson Field (the current response area of Mason County Fire District #11)	A-1; D-1; F-1

Mason	#12	Matlock area, large southwestern portion of the County. Bordered to the west and south by Grays Harbor County. Also shares border with Olympic National Forest to the North and Northeast (the current response area of Mason County Fire District #12)	A-1; D-1; F-1
Mason	#13	South-central area of the County, southern border to Grays Harbor County, northern at Lost Lake. Small northeastern area borders the City of Shelton	A-1; D-1; F-1
Mason	#16	Dayton Area. Borders Shelton to the east. Ends at Mile 1 on airport Road to the north, mile 9 of Shelton-Matlock Road to the west.	L-A-1; D-1; F-1
Mason	#17	Northwestern area along Highway 101. Borders Jefferson County to the North, Hood Canal to the east, Olympic National Park to the West and Lilliwaup to the south (the current response area of Mason County Fire District #17)	A-1; D-1; F-1
Mason	#18	Lake Cushman Area. Surrounded on all sides By Olympic National Park and Forest areas, except small access area which abuts Hoodspout (the current response area of Mason County Fire District #18)	D-1; F-1
Mason	#15	City of Shelton	A-1; F-1
Mason	A	Olympic National Park North of Fire District #12, Surrounding Fire District #18	A-1; G-1
Mason	B	Olympic National Park	
Mason	C	Department of Natural Resources Land. South of Fire District #6, East of Fire District #9 and North of Fire District #5	
Mason	D	McNeil Island Prison	

**\*Key: For each level the type and number should be indicated**

Aid-BLS = A                      Ambulance-BLS = D  
Aid-ILS = B                      Ambulance-ILS = E  
Aid-ALS = C                      Ambulance-ALS = F

\*\*Explanation: The *type and number* column of this table accounts for the level of care available in a specific trauma response area that is provided by verified services. Some verified services (agencies) may provide a level of care in multiple trauma response areas therefore the **total type and number of verified services depicted in the table may not represent the actual number of State verified services available in a county; it may be a larger number in Trauma Response Area table.** The verified service minimum/maximum table will provide accurate verified service numbers for counties.

### **Appendix 3.**

#### **Approved Min/Max Numbers**

**A. Approved Minimum/Maximum (Min/Max) numbers of Designated Trauma Care Services in the Region (General Acute Trauma Services) by level**

Level	State Approved		Current Status
	Min	Max	
II	1	1	0
III	2	2	2
IV	2	3	3
V	3	4	0
II P	0	0	0
III P	1	1	0

**B. Approved Minimum/Maximum (min/max) numbers of Designated Rehabilitation Trauma Care Services in the Region by level**

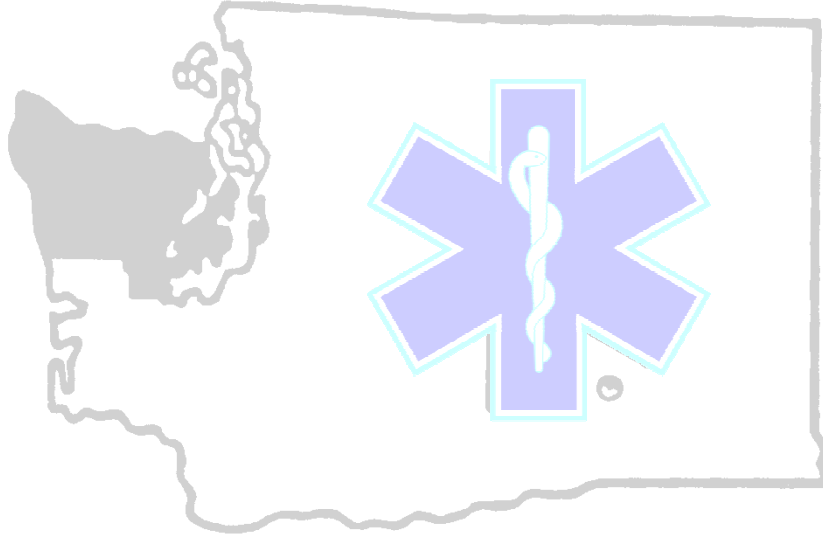
Level	State Approved		Current Status
	Min	Max	
II	0	0	0
III*	0	0	0

\*There are no restrictions on the number of Level III Rehab Services

**Appendix 4.**  
**Patient Care Procedures (PCPs)**

# ***PATIENT CARE PROCEDURES***

**Northwest Regional Emergency Medical Services & Trauma Care Council**



5610 Kitsap Way, Suite 240

Post Office Box 5179

Bremerton, WA 98312

*REVISED By:*

*Northwest Region EMS & Trauma Care Council Training Education & Development  
Committee*

***ADOPTED By:***

***Northwest Region EMS & Trauma Care Council***

---

Tim McKern, Chairperson

# Contents

Introduction.....	61
Objective of the Trauma System.....	61
Activation of the Trauma System .....	62
Designated Trauma Centers.....	62
Data Collection WAC 246-976-420.....	63
Definitions .....	72
Patient Care Procedure – Dispatch .....	79
Patient Care Procedure – Response Times .....	80
Patient Care Procedure – Triage and Transport.....	81
Patient Care Procedure – Transport Guidelines.....	82
Data Collection .....	82
Patient Care Procedure – Interfacility Transport .....	83
Patient Care Procedure – Transport of Patients Outside of Base Area .....	84
Patient Care Procedure – Activation of Air Ambulance for Filed Response to Major Trauma.....	85
Regional Care of the critically Ill and Injured Child – Triage and Transfer Guidelines.....	86
State of Washington Prehospital trauma Triage (Destination) Procedures .....	88
Addendum’s .....	90

## **INTRODUCTION**

The Northwest Region's Patient Care Procedures are designed to serve as a guide to Medical Program Directors, trauma verified EMS agencies, 9-1-1 centers and EMS personnel as to how and when to activate the Northwest Region's Trauma System. These procedures apply to Clallam, Jefferson, Kitsap and Mason Counties.

The following Regional Patient Care Procedures are intended as an approach toward the rapid treatment of major trauma patients in the Northwest Region.

## **OBJECTIVE OF THE TRAUMA SYSTEM**

The objective of the Northwest Region EMS & Trauma System is to identify and transport patients, based on medical need, to the most appropriate hospital facility in an expedient manner.

Major trauma patients from the following categories are considered at high risk for morbidity and mortality therefore need immediate transfer or transport to the appropriate Level I or Level II trauma center.

### ***Central Nervous System Injuries***

Head injury with any of the following:

- Open, penetrating, or depressed skull fracture
- CSF leak
- Severe coma
- Deterioration in Glasgow Coma Score of 2 or more points
- Lateralizing signs
- Unstable spine
- Spinal cord injury

### ***Chest***

Suspected great vessel or cardiac injuries  
Major chest wall injury  
Patient who may require positive pressure ventilation

### ***Pelvis***

Pelvic ring disruption with shock requiring more than 5 units transfusion  
Evidence of continued hemorrhage  
Compound/open pelvic injury with head injury

### ***Multiple System Injury***

Severe facial injury with head injury  
Chest injury with head injury  
Abdominal or pelvic injury with head injury  
Burns with head injury

### ***Specialized Problems***

Burns over 20 percent of the patient's body surface area involving airway  
Carbon monoxide poisoning  
Barotrauma

## **OBJECTIVE OF THE TRAUMA SYSTEM (continued)**

### *Secondary Deterioration (Late Sequelae)*

Patient requiring mechanical ventilation

Sepsis

Organ system(s) failure (deterioration in CNS, cardiac, pulmonary, hepatic, renal or coagulation system(s))

Osteomyelitis

EMT's and/or Paramedics shall use the State of Washington's Prehospital Trauma Triage (Destination) Procedures [Addendum 1] and be knowledgeable of the steps required to activate the Trauma System. In general, major trauma patients who meet the major trauma criteria listed above should be immediately transported or transferred to Harborview Medical Center in Seattle.

## **ACTIVATION OF TRAUMA SYSTEM**

Upon evaluation of the patient(s) and determination of the need for a trauma team, the Paramedic, EMT, or appropriate medical personnel shall contact medical control at the nearest or most appropriate designated trauma center and request the activation of the Trauma System.

Once identified, trauma patients should be banded, treated, transported and trauma data collected as quickly as possible. In all cases, the goal of the Northwest Region Trauma System is to have all trauma patients delivered to the most appropriate medical receiving facility within 60 minutes from the time of arrival of EMS on scene of the trauma incident.

## **DESIGNATED TRAUMA CENTERS**

Washington State Department of Health has designated five trauma centers in the Northwest Region to receive major trauma patients.

Those trauma centers and their designation levels are:

<b><u>Location</u></b>	<b><u>Facility</u></b>	<b><u>Level</u></b>
Clallam County	Forks Community Hospital Olympic Medical Center	IV III
Jefferson County	Jefferson Health Care	IV
Kitsap County	Harrison Medical Center Bremerton	III
Mason County	Mason General Hospital	IV

## DATA COLLECTION

### WAC 246-976-420 Trauma registry -- Department responsibilities.

(1) **Purpose:** The department maintains a trauma registry, as required by RCW [70.168.060](#) [Addendum 2] and [70.168.090](#)[Addendum 3]. The purpose of this registry is to:

- (a) Provide data for injury surveillance, analysis, and prevention programs;
- (b) Monitor and evaluate the outcome of care of major trauma patients, in support of statewide and regional quality assurance and system evaluation activities;
- (c) Assess compliance with state standards for trauma care;
- (d) Provide information for resource planning, system design and management;
- (e) Provide a resource for research and education.

(2) **Confidentiality:** It is essential for the department to protect information regarding specific patients and providers. Data elements related to the identification of individual patient's, provider's, and facility's care outcomes shall be confidential, shall be exempt from RCW [42.17.250](#) through [42.17.450](#), and shall not be subject to discovery by subpoena or admissible as evidence.

(a) The department may release confidential information from the trauma registry in compliance with applicable laws and regulations. No other person may release confidential information from the trauma registry without express written permission from the department.

(b) The department may approve requests for trauma registry data from qualified agencies or individuals, consistent with applicable statutes and rules. The department may charge reasonable costs associated with such requests.

(c) The data elements indicated as confidential in Tables E, F and G below are considered confidential.

(d) The department will establish criteria defining situations in which additional registry information is confidential, in order to protect confidentiality for patients, providers, and facilities.

(e) This paragraph does not limit access to confidential data by approved regional quality assurance programs established under chapter [70.168](#) RCW and described in WAC [246-976-910](#).

(3) **Inclusion criteria:**

(a) The department will establish inclusion criteria to identify those injured patients that designated trauma services must report to the trauma registry.

These criteria will include:

(i) All patients who were discharged with ICD diagnosis codes of 800.0 - 904.99, 910- 959.9 (injuries), 994.1 (drowning), 994.7 (asphyxiation), or 994.8 (electrocution) and:

(A) For whom the hospital trauma resuscitation team was activated; or

(B) Who were dead on arrival at your facility; or

(C) Who were dead at discharge from your facility; or

(D) Who were transferred by ambulance into your facility from another facility; or

(E) Who were transferred by ambulance out of your facility to

another acute care facility; or

(F) Adult patients (age fifteen or greater) who were admitted as inpatients to your facility and have a length of stay greater than two days or forty-eight hours; or

(G) Pediatric patients (ages under fifteen years) who were admitted as inpatients to your facility, regardless of length of stay; or

(ii) All patients who meet the requirements of the state of Washington prehospital trauma triage procedures described in WAC [246-976-930](#)(3);

(b) For all licensed rehabilitation services, these criteria will include all patients who were included in the trauma registry for acute care.

- (4) **Other data:** The department and regional quality assurance programs may request data from medical examiners and coroners in support of the registry.
- (5) **Data linking:** To link data from different sources, the department will establish procedures to assign a unique identifying number (trauma band number) to each trauma patient. All providers reporting to the trauma registry must include this trauma number.
- (6) **Data submission:** The department will establish procedures and format for providers to submit data electronically. These will include a mechanism for the reporting agency to check data for validity and completeness before data is sent to the registry.
- (7) **Data quality:** The department will establish mechanisms to evaluate the quality of trauma registry data. These mechanisms will include at least:
  - (a) Detailed protocols for quality control, consistent with the department's most current data quality guidelines.
  - (b) Validity studies to assess the timeliness, completeness and accuracy of case identification and data collection. The department will report quarterly on the timeliness, accuracy and completeness of data.
- (8) **Registry reports:**
  - (a) Annually, the department will report:
    - (i) Summary statistics and trends for demographic and related information about trauma care, for the state and for each EMS/TC region;
    - (ii) Outcome measures, for evaluation of clinical care and system-wide quality assurance and quality improvement programs.
  - (b) Semiannually, the department will report:
    - (i) Trends, patient care outcomes, and other data, for each EMS/TC region and for the state, for the purpose of regional evaluation;
    - (ii) On all patient data entered into the trauma registry during the reporting period;
    - (iii) Aggregate regional data to the regional EMS/TC council, excluding any confidential or identifying data.
  - (c) The department will provide:
    - (i) Provider-specific raw data to the provider that originally submitted it;
    - (ii) Periodic reports on financial data;
    - (iii) Registry reports to all providers that have submitted data;
    - (iv) For the generation of quarterly reports to all providers submitting data to the registry, for the purpose of planning, management, and quality assurance.

**WAC 246-976-430 Trauma registry -- Provider responsibilities.**

(1) Trauma care providers, prehospital and hospital, must place a trauma ID band on trauma patients, if not already in place from another agency.

(2) All trauma care providers must protect the confidentiality of data in their possession and as it is transferred to the department.

(3) All trauma care providers must correct and resubmit records which fail the department's validity tests described in WAC [246-976-420\(6\)](#). You must send corrected records to the department within three months of notification.

(4) Licensed prehospital services that transport trauma patients must:

(a) Assure personnel use the trauma ID band.

(b) Report data as shown in Table E for trauma patients defined in WAC [246-976-420](#). Data is to be reported to the receiving facility in an approved format within ten days.

(5) Designated trauma services must:

(a) Assure personnel use the trauma ID band.

(b) Report data elements shown in Table F for all patients defined in WAC [246-976-420](#).

(c) Report patients discharged in a calendar quarter in an approved format by the end of the following quarter. The department encourages more frequent data reporting.

(6) Designated trauma rehabilitation services must:

(a) Report data on all patients who were included in the trauma registry for acute care.

(b) Report either:

(i) Data elements shown in Table G; or

(ii) If the service submits data to the uniform data set for medical rehabilitation, provide a copy of the data to the department.

<b>TABLE E: Prehospital Data Elements for the Washington Trauma Registry</b>			
	<b>Type of patient</b>	<b>Pre-Hosp Transport</b>	<b>Inter-Facility</b>
<b>Data Element</b>			
Note: (C) identifies elements that are confidential. See WAC <a href="#">246-976-420</a> (2)(c)			
<b>Incident Information</b>			
Agency identification number (C)		X	X
Date of response (C - day only)		X	X
Run sheet number (C)		X	X
First agency on scene identification number (C)		X	
Level of personnel		X	X
Mode of transport		X	X
Incident county code		X	
Incident location (type)		X	
Incident response area type		X	

Type of patient	Pre-Hosp Transport	Inter-Facility
<b>Patient Information</b>		
Patient's trauma identification band number (C)	X	X
Name (C)	X	X
Date of birth (C), or Age	X	X
Sex	X	X
Mechanism of injury	X	
Safety restraint or device used	X	
<b>Transportation</b>		
Transported from (code) (C - if hospital ID)	X	X
Reason for destination decision	X	X
<b>Times</b>		
Transporting agency dispatched	X	X
Transporting agency arrived at scene	X	X
Transporting agency departed from scene	X	X
<b>Vital Signs</b>		
Time	X	X
Systolic blood pressure	X	X
Respiratory rate	X	X
Pulse	X	X
Glasgow coma score (three components)	X	X
Pupils	X	X
Vitals from 1st agency on scene?	X	
<b>Trauma Triage Criteria</b>		
Vital signs, consciousness level	X	
Anatomy of injury	X	
Biomechanics of injury	X	
Other risk factors	X	
Gut feeling of medic	X	
Prehospital trauma system activation?	X	
<b>Other Severity Measures</b>		
Respiratory quality	X	
Consciousness	X	
Time (interval) for extrication	X	
<b>Treatment</b>		
EMS interventions	X	X

**TABLE F: Hospital Data Elements for the Washington Trauma Registry**

All licensed hospitals must submit the following data for patients identified in WAC [246-976-420\(3\)](#):

Note: (C) identifies elements that are confidential. See WAC [246-976-420\(2\)](#).

**Record Identification**

Identification of reporting facility (C);

Date and time of arrival at reporting facility (C - day only);

Unique patient identification number assigned to the patient by the reporting facility (C);

Patient's trauma identification band number (C);

**Patient Identification**

Name (C);

Date of birth (C - day only);

Sex;

Race;

Social Security number (C);

Home zip code;

**Prehospital Incident Information**

Date and time of incident (C - day only);

Prehospital trauma system activated?;

First agency on-scene ID number;

Arrival via EMS system?;

Transporting (reporting) agency ID number;

Transporting agency run number (C);

Mechanism of injury;

Respiratory quality;

Consciousness;

Incident county code;

Incident location type;

Response area type;

Occupational injury?;

Safety restraint/device used;

**Earliest Available Prehospital Vital Signs**

Time;

Systolic blood pressure;

Respiratory rate;

Pulse rate;

Glasgow coma score (three components);

Pupils;

Vitals from 1st on-scene agency?;

Extrication time over twenty minutes?;

Prehospital procedures performed;

Prehospital Triage

Vital signs/consciousness;

Anatomy of injury;  
Biomechanics of injury;  
Other risk factors;  
Gut feeling of medic;

**Transportation Information**

Time transporting agency dispatched;  
Time transporting agency arrived at scene;  
Time transporting agency left scene;  
Transportation mode;  
Personnel level;  
Transported from;  
Reason for destination;

**ED or Admitting Information**

Time ED physician called;  
ED physician called "code"?;  
Time ED physician available for patient care;  
Time trauma team activated;  
Level of trauma team activation;  
Time trauma surgeon called;  
Time trauma surgeon available for patient care;

**Vital Signs in ED**

Patient dead on arrival at your facility?;  
First and last systolic blood pressure;  
First and last temperature;  
First and last pulse rate;  
First and last spontaneous respiration rate;  
Lowest systolic blood pressure;  
Glasgow coma scores (eye, verbal, motor);

**Injury Severity scores**

Prehospital Index (PHI) score;  
Revised Trauma Score (RTS) on admission;  
For pediatric patients:  
Pediatric Trauma Score (PTS) on admission;  
Pediatric Risk of Mortality (PRISM) score on admission;  
Pediatric Risk of Mortality - Probability of Survival (PRISM P(s));  
Pediatric Overall Performance Category (POPC);  
Pediatric Cerebral Performance Category (PCPC);

ED procedures performed;  
ED complications;  
Time of ED discharge;  
ED discharge disposition, including  
If admitted, the admitting service;  
If transferred out, ID of receiving hospital

**Diagnostic and Consultative Information**

Date and time of head CT scan;  
Date of physical therapy consult;

Date of rehabilitation consult;  
Blood alcohol content;  
Toxicology screen results;  
Drugs found;  
Co-morbid factors/Preexisting conditions;

**Surgical Information**

For the first operation:  
Date and time patient arrived in operating room;  
Date and time operation started;  
OR procedure codes;  
For later operations:  
Date of operation  
OR Procedure Codes

**Critical Care Unit Information**

Date and time of admission for primary stay in critical care unit;  
Date and time of discharge from primary stay in critical care unit;  
Length of readmission stay(s) in critical care unit;

**Other procedures performed (not in OR)**

**Discharge Status**

Date and time of facility discharge (**C - day only**);  
Most recent ICD diagnosis codes/discharge codes, including nontrauma codes;  
E-codes, primary and secondary;  
Glasgow Score at discharge;  
Disability at discharge (Feeding/Locomotion/Expression)

**Discharge disposition**

If transferred out, ID of facility patient was transferred to (**C**)  
If patient died in your facility  
Date and time of death (**C - day only**);  
Was an autopsy done?;  
Was case referred to coroner or medical examiner?  
Did coroner or medical examiner accept jurisdiction?  
Was patient evaluated for organ donation?

**Financial Information (All Confidential)**

For each patient  
Total billed charges;  
Payer sources (by category);  
Reimbursement received (by payer category);  
Annually, submit ratio-of-costs-to-charges, by department.

**TABLE G: Data Elements for Designated Rehabilitation Services**

Designated trauma rehabilitation services must submit the following data for patients identified in WAC [246-976-420\(3\)](#).

Note: (**C**) identifies elements that are confidential. WAC [246-976-420\(2\)](#)

**Rehabilitation services, Levels I and II**

**Patient Information**

Facility ID (**C**)  
Facility Code

Patient Code  
Trauma tag/identification Number (C)  
Date of Birth (C - **day only**)  
Social Security Number (C)  
Patient Name (C)  
Patient Sex

**Care Information**

Date of Admission (C - **day only**)  
Admission Class  
Date of Discharge (C - **day only**)  
Impairment Group Code  
ASIA Impairment Scale

**Diagnosis (ICD-9) Codes**

Etiologic Diagnosis  
Other significant diagnoses  
Complications/comorbidities  
Diagnosis for transfer or death

**Other Information**

Date of onset  
Admit from (Type of facility)  
Admit from (ID of facility)  
Acute trauma care by (ID of facility)  
Prehospital living setting  
Prehospital vocational category  
Discharge-to-living setting

**Functional Independence Measure (FIM) - One set on admission and one on discharge**

Self Care  
Eating  
Grooming  
Bathing  
Dressing - Upper  
Dressing - Lower  
Toileting  
Sphincter control  
Bladder  
Bowel  
Transfers  
Bed/chair/wheelchair  
Toilet  
Tub/shower  
Locomotion  
Walk/wheelchair  
Stairs  
Communication  
Comprehension

Expression  
Social cognition  
Social interaction  
Problem solving  
Memory

**Payment Information (all confidential)**

Payer source - primary and secondary  
Total Charges  
Remitted reimbursement by category

**Rehabilitation, Level III**

**Patient Information**

Facility ID (C)  
Patient number (C)  
Trauma tag/identification Number (C)  
Social Security Number (C)  
Patient Name (C)

**Care Information**

Date of Admission (C - day only)

**Impairment Group Code**

**Diagnosis (ICD-9) Codes**

Etiologic Diagnosis  
Other significant diagnoses  
Complications/co-morbidities

**Other Information**

Admit from (Type of facility)  
Admit from (ID of facility) (C)  
Acute trauma care given by (ID of facility) (C)  
Inpatient trauma rehabilitation given by (ID of facility) (C)  
Discharge-to-living setting

**Payment Information (all confidential)**

Payer source - primary and secondary  
Total Charges  
Remitted reimbursement by category

Data shall arrive at the DOH registry in an approved format no later than ninety days after the end of the quarter.

## DEFINITIONS

**WAC 246-976-010 Definitions.** Definitions in RCW [18.71.200](#), [18.71.205](#), [18.73.030](#), and [70.168.015](#) apply to this chapter. In addition, unless the context plainly requires a different meaning, the following words and phrases used in this chapter mean:

"**ACLS**" means advanced cardiac life support, a course developed by the American Heart Association.

"**Activation of the trauma system**" means mobilizing resources to care for a trauma patient in accordance with regional patient care procedures. When the prehospital provider identifies a major trauma patient, using approved prehospital trauma triage procedures, he or she notifies both dispatch and medical control from the field.

"**Adolescence**" means the period of physical and psychological development from the onset of puberty to maturity, approximately twelve to eighteen years of age.

"**Advanced first aid**," for the purposes of RCW [18.73.120](#), [18.73.150](#), and [18.73.170](#), means a course of at least twenty-four hours of instruction, which includes at least:

- CPR;
- Airway management;
- Trauma/wound care;
- Immobilization.

"**Agency response time**" means the interval from agency notification to arrival on the scene. It is the combination of activation and enroute times defined under system response times in this section.

"**Aid service**" means an agency licensed by the department to operate one or more aid vehicles, consistent with regional and state plans.

"**Airway technician**" means a person who:

- Has been trained in an approved program to perform endotracheal airway management and other authorized aids to ventilation under written or oral authorization of an MPD or approved physician delegate; and
- Has been examined and certified as an airway technician by the department or by the University of Washington's school of medicine

"**ALS**" means advanced life support.

"**Ambulance service**" means an agency licensed by the department to operate one or more ground or air ambulances. Ground ambulance service operation must be consistent with regional and state plans. Air ambulance service operation must be consistent with the state plan.

**"Approved"** means approved by the department of health.

**"ATLS"** means advanced trauma life support, a course developed by the American College of Surgeons.

**"Attending surgeon"** means a physician who is board-certified or board-qualified in general surgery, and who has surgical privileges delineated by the facility's medical staff. The attending surgeon is responsible for care of the trauma patient, participates in all major therapeutic decisions, and is present during operative procedures.

**"Available"** for designated trauma services described in WAC [246-976-485](#) through [246-976-890](#) means physically present in the facility and able to deliver care to the patient within the time specified. If no time is specified, the equipment or personnel must be available as reasonable and appropriate for the needs of the patient.

**"BLS"** means basic life support.

**"Basic life support"** means emergency medical services requiring basic medical treatment skills as defined in chapter [18.73](#) RCW.

**"Board certified"** means that a physician has been certified by the appropriate specialty board recognized by the American Board of Medical Specialties. For the purposes of this chapter, references to "board certified" include physicians who are board-qualified.

**"Board-qualified"** means physicians who have graduated less than five years previously from a residency program accredited for the appropriate specialty by the accreditation council for graduate medical education.

**"BP"** means blood pressure.

**"Certification"** means the department recognizes that an individual has met predetermined qualifications, and authorizes the individual to perform certain procedures.

**"CME"** means continuing medical education.

**"Consumer"** means an individual who is not associated with the EMS/TC system, either for pay or as a volunteer, except for service on the steering committee, licensing and certification committee, or regional or local EMS/TC councils.

**"Continuing medical education (CME)"** means ongoing education after initial certification to maintain and enhance skill and knowledge.

**"CPR"** means cardiopulmonary resuscitation.

**"Dispatch"** means to identify and direct an emergency response unit to an incident location.

**"E-code"** means external cause code, an etiology included in the International Classification of Diseases (ICD).

**"ED"** means emergency department.

**"Emergency medical services and trauma care (EMS/TC) system"** means an organized approach to providing personnel, facilities, and equipment for effective and coordinated medical treatment of patients with a medical emergency or injury requiring immediate medical or surgical intervention to prevent death or disability. The emergency medical service and trauma care system includes prevention activities, prehospital care, hospital care, and rehabilitation.

**"EMS"** means emergency medical services.

**"EMS/TC"** means emergency medical services and trauma care.

**"EMT"** means emergency medical technician.

**"General surgeon"** means a licensed physician who has completed a residency program in surgery and who has surgical privileges delineated by the facility.

**"ICD"** means the international classification of diseases, a coding system developed by the World Health Organization.

**"ILS"** means intermediate life support.

**"Injury prevention"** means any combination of educational, legislative, enforcement, engineering and emergency response initiatives used to reduce the number and severity of injuries.

**"Interfacility transport"** means medical transport of a patient between recognized medical treatment facilities requested by a licensed health care provider.

**"Intermediate life support (ILS) technician"** means a person who:

- Has been trained in an approved program to perform specific phases of advanced cardiac and trauma life support as specified in this chapter, under written or oral direction of an MPD or approved physician delegate; and
- Has been examined and certified as an ILS technician by the department or by the University of Washington's school of medicine.

**"Intravenous therapy technician"** means a person who:

- Has been trained in an approved program to initiate IV access and administer intravenous solutions under written or oral authorization of an MPD or approved

physician delegate; and

- Has been examined and certified as an intravenous therapy technician by the department or by the University of Washington's school of medicine.

**"IV"** means intravenous.

**"Licensing and certification committee (L&C committee)"** means the emergency medical services licensing and certification advisory committee created by RCW [18.73.040](#).

**"Local council"** means a local EMS/TC council authorized by RCW [70.168.120\(1\)](#).

**"Local medical community"** means the organized local medical society existing in a county or counties; or in the absence of an organized medical society, majority physician consensus in the county or counties.

**"Medical control"** means MPD authority to direct the medical care provided by certified EMS personnel in the prehospital EMS system.

**"Medical control agreement"** means a written agreement between two or more MPDs, using similar protocols that are consistent with regional plans, to assure continuity of patient care between counties, and to facilitate assistance.

**"MPD"** means medical program director.

**"Must"** means shall.

**"Ongoing training and evaluation program"** or "ongoing training and evaluation program or "OTEP" or "OTEP program" or "OTEP method" is a program of education for EMS personnel that is approved by the MPD and the department to meet the education requirements and core topic content for recertification. OTEP includes cognitive, affective and psychomotor evaluations following completion of each topic presentation to determine student competence of topic content.

**"PALS"** means pediatric advanced life support, a course developed by the American Heart Association.

**"Paramedic"** means a person who:

- Has been trained in an approved program to perform all phases of prehospital emergency medical care, including advanced life support, under written or oral authorization of an MPD or approved physician delegate; and
- Has been examined and certified as a paramedic by the department or by the University of Washington's school of medicine.

**"Pediatric education requirement" or "PER"** means the pediatric education and training standards required for certain specialty physicians and nurses who care for pediatric patients in designated trauma services as identified in WAC 246-976-886 and 246-976-887.

**"Physician"** means an individual licensed under the provisions of chapters [18.71](#) or [18.57](#) RCW.

**"Physician with specific delineation of surgical privileges"** means a physician with surgical privileges delineated for emergency/life-saving surgical intervention and stabilization of a trauma patient prior to transfer to a higher level of care. Surgery privileges are awarded by the facility's credentialing process.

**"Postgraduate year"** means the classification system for residents who are undergoing postgraduate training. The number indicates the year the resident is in during his/her post medical school residency program.

**"Practical skills examination"** means a test conducted in an initial course, or a test or series of evaluations during a recertification period, to determine competence in each of the practical skills specified by the department.

**"Prehospital agencies"** means providers of prehospital care or interfacility ambulance transport.

**"Prehospital index"** means a scoring system used to activate a hospital trauma resuscitation team.

**"Prehospital patient care protocols"** means the written procedures adopted by the MPD under RCW [18.73.030](#)(13) and [70.168.015](#) (26) which direct the out-of-hospital emergency care of the emergency patient which includes the trauma care patient. These protocols are related only to delivery and documentation of direct patient treatment.

**"Prehospital trauma care services"** means agencies that are verified to provide prehospital trauma care.

**"Prehospital trauma triage procedures"** means the method used by prehospital providers to evaluate injured patients and determine whether to activate the trauma system from the field. It is described in WAC [246-976-930](#)(2).

**"Public education"** means education of the population at large, targeted groups or individuals, in preventive measures and efforts to alter specific injury-related behaviors.

**"Quality assurance (QA)"** means an organized quality assessment and improvement program to audit and evaluate care provided in EMS/TC systems, with the goal of improving patient outcomes.

**"Regional council"** means the regional EMS/TC council established by RCW [70.168.100](#).

**"Regional patient care procedures (RPCP)"** means procedures adopted by a regional council under RCW [18.73.030](#)(14) and [70.168.015](#) (23), and approved by the department. Regional patient care procedures do not relate to direct patient care.

**"Regional plan"** means the plan defined in WAC [246-976-960](#) (1)(b) that has been approved by the department.

**"Registered nurse"** means an individual licensed under the provisions of chapter [18.79](#) RCW.

**"Response area"** means a service coverage zone identified in an approved regional plan.

**"Rural"** means unincorporated or incorporated areas with total populations less than ten thousand people, or with a population density of less than one thousand people per square mile.

**"Senior EMT instructor (SEI)"** means an individual approved to be responsible for the quality of instruction and the conduct of basic life support training courses.

**"Special competence"** means that an individual has been deemed competent and committed to a medical specialty area with documented training, board certification and/or experience, which has been reviewed and accepted as evidence of a practitioner's expertise:

- For physicians, by the facility's medical staff;
- For registered nurses, by the facility's department of nursing;
- For physician assistants and advanced registered nurse practitioners, as defined in the facility's bylaws.

**"Specialized training"** means approved training of certified EMS personnel to use a skill, technique, or equipment that is not included in the standard course curriculum.

**"State plan"** means the emergency medical services and trauma care system plan described in RCW [70.168.015](#)(7), adopted by the department under RCW [70.168.060](#)(10).

**"Steering committee"** means the EMS/TC steering committee created by RCW [70.168.020](#).

**"Suburban"** means an incorporated or unincorporated area with a population of ten thousand to twenty-nine thousand nine hundred ninety nine or any area with a population density of one thousand to two thousand people per square mile.

**"System response time"** for trauma means the interval from discovery of an injury until the patient arrives at a designated trauma facility. It includes:

"Discovery time": The interval from injury to discovery of the injury;

"System access time": The interval from discovery to call received;

"911 time": The interval from call received to dispatch notified, including the time it takes the call answerer to:

- Process the call, including citizen interview; and
- Give the information to the dispatcher

"Dispatch time": The interval from call received by the dispatcher to agency notification;

- "Activation time": The interval from agency notification to start of response;
- "Enroute time": The interval from the end of activation time to the beginning of on- scene time;
- "Patient access time": The interval from the end of enroute time to the beginning of patient care;
- "On scene time": The interval from arrival at the scene to departure from the scene. This includes extrication, resuscitation, treatment, and loading;
- "Transport time": The interval from leaving the scene to arrival at a health care facility;

**"Training agency"** means an organization or individual that is approved to be responsible for specified aspects of training of EMS personnel.

**"Training physician"** means a physician delegated by the MPD and approved by the department to be responsible for specified aspects of training of EMS personnel.

**"Trauma rehabilitation coordinator"** means a person designated to facilitate early rehabilitation interventions and the trauma patient's access to a designated rehabilitation center.

**"Urban"** means:

- An incorporated area over thirty thousand; or
- An incorporated or unincorporated area of at least ten thousand people and a population density over two thousand people per square mile.

**"Wilderness"** means any rural area not readily accessible by public or private maintained road.

## **PATIENT CARE PROCEDURE – Dispatch**

### ***Standard***

Provide timely care to all trauma patients so major trauma patients are provided appropriate medical treatment within the “golden hour” of trauma treatment.

As outlined in the Regional Trauma System Plan, “Dispatch Time” is defined as “the time from when the call is received by dispatch to the time the agency is notified” (WAC 246-976-010) [See Definitions].

As outlined in the Regional Trauma System Plan, “Response Time” is measured from “the time the call is received by the trauma verified service to the time of arrival on-scene”.

For major trauma patients, the following time guidelines are to be used (measured from the time the call is received by the trauma verified service to the time of arrival on-scene):

First Response (80 percent of the time)

Urban Areas	8 minutes
Suburban Areas	15 minutes
Rural/rural-suburban	45 minutes
Wilderness/Marine/Frontier	As soon as possible

Transport Response Time (80 percent of the time)

Urban Areas	10 minutes
Suburban Areas	20 minutes
Rural/rural-suburban	45 minutes
Wilderness/Marine/Frontier	As soon as possible

### ***Procedure***

A licensed ambulance and/or aid service shall be dispatched to all emergency and trauma incidents in the Northwest Region.

The highest level trauma verified ambulance in the response area should be dispatched to transport all known or suspected major trauma patients who meet, or are suspected to meet, the State of Washington Prehospital Trauma Triage (Destination) Procedures [Addendum 1].

## **PATIENT CARE PROCEDURE – Response Times**

### ***Standard***

All licensed ambulance and aid services shall respond to emergency medical and trauma incidents in a timely manner in accordance with the Northwest Region Plan and State WAC 246-976-390(10) [Addendum 4] and WAC 246-976-390(11) - Verification of Trauma Care Services [Addendum 5].

The Northwest Region EMS Council has identified the following urban, suburban, rural-suburban, rural and wilderness/marine/frontier areas response times in the Northwest Region Trauma Plan.

#### First Response (80 percent of the time)

Urban Areas	8 minutes
Suburban Areas	15 minutes
Rural/rural-suburban	45 minutes
Wilderness/Marine/Frontier	As soon as possible

#### Transport Response Time (80 percent of the time)

Urban Areas	10 minutes
Suburban Areas	20 minutes
Rural/rural-suburban	45 minutes
Wilderness/Marine/Frontier	As soon as possible

### ***Procedure***

In all major trauma cases, the Golden Hour shall be a dispatch/response/transport goal whenever possible.

A trauma verified service should proceed in an emergency mode to all suspected major trauma incidents until which time they have been advised of injury status to the patients involved.

## **PATIENT CARE PROCEDURE – Triage and Transport**

### ***Standard***

All licensed ambulance/transport and aid services shall comply with the Northwest Region EMS & Trauma System Plan, Simple Triage and Rapid Treatment (START Triage) Protocol [Appendix 6] and the State of Washington Prehospital Trauma Triage (Destination) Procedures [Addendum 1] and transport trauma patients to the most appropriate designated trauma center.

When a destination facility is placed on divert status, field personnel shall transport to the next closest – equal or higher designated trauma facility.

### ***Procedure***

The first trauma care providing agency to determine that the patient needs definitive medical care or meets the State of Washington Trauma Triage (Destination) Procedures [Addendum 1] criteria, shall ensure immediate contact with a Level I or Level II trauma designated facility or the agency's on-line medical control.

The receiving facility must be provided with the following information, as outlined in the State of Washington Prehospital Trauma Triage (Destination) Procedures [Addendum 1]:

1. Identification of the EMS agency;
2. Patient's age, if known (or approximate age);
3. Patient's chief complaint(s) or problem;
4. Identification of the biomechanics and anatomy of the injury;
5. Basic vital signs (palpable pulse, where palpable, and rate of respiration);
6. Level of consciousness (Glasgow Coma Score or other means);
7. Other factors that require consultation with the base station;
8. Number of patients (if known); and
9. Estimated time of transport of the patient(s) to the nearest and highest level of trauma designated facility.
10. Estimated time of transport of the patient(s) from the scene to the nearest Level I or II facility

The first EMS person to determine that a patient meets the State of Washington Prehospital Trauma Triage (Destination) Procedures [Addendum 1] criteria shall attach a Washington State Trauma Registry Band to the patient's wrist or ankle.

An air ambulance transport should be considered for transport by agencies in the Northwest Region when transport by ground will be greater than 30 minutes, unless weather conditions do not allow for such use, as outlined in the State of Washington Prehospital Trauma Triage (Destination) Procedures [Addendum 1].

## **PATIENT CARE PROCEDURE – Transport guidelines**

### ***Standard***

All EMS Agencies should follow their Medical Program Director's patient care protocols and /or guidelines for the care and transport of medical and non-major trauma patients. If it is unclear as to where a medical or non-major trauma patient should be transported, contact medical control at your nearest resource hospital for directions; otherwise follow off-line medical control of patients as outlined in your standing orders, patient care protocols, and/or guidelines provided by your Medical Program Director. For the care and transport of identified Major trauma patients EMS Agencies should use the most current State of Washington Prehospital Trauma Triage (Destination) Procedures according to the Department of Health [Addendum 1].

### ***Procedure***

MPD's, in the development of their patient care protocols and/or guidelines for the care and transport of medical and non-major trauma patients, who do not meet State of Washington Prehospital trauma Triage (Destination) Procedures shall consider:

- A. Patient's desire or choice of medical facility within the region as to where they want to be transported and/or treated. Or, In the case of an unconscious patient, the wishes of the patient's family or personal physician.
- B. The type of treatment and the ability of a receiving hospital to treat such medical or non-major trauma (i.e., high risk OB patients, potential ICU/CCU patients, unstable co-morbid medical patients, etc.).
- C. Level, severity, and type of injuries.
- D. Ability of the receiving hospital to adequately treat the medical or non-major trauma patient.

In all cases, unless proper medical care and resources dictate otherwise, the choice of the patient is paramount in the development of standing orders, patient care protocols, and/or guidelines for EMS transport agencies.

### **DATA COLLECTION**

Trauma verified ambulance and aid services shall collect and leave documentation in the form of Northwest Region approved MIR forms or approved electronic computer submission to the Hospital the patient was transported.

## **PATIENT CARE PROCEDURE – Interfacility Transport**

### ***Standard***

All designated trauma facilities shall have transfer agreements for the identification and transfer of trauma patients.

All interfacility transfers shall be in compliance with current OBRA/COBRA and EMTALA regulations and must be consistent with RCW 70.170.060(2) [Addendum 7].

### ***Procedure***

This is part of the Trauma Center Designation process and is addressed in the designation application process. The Northwest Region will use the procedures outlined by each facility in their designation application.

### **Interfacility transfer of A major Trauma Patient**

When a major trauma patient must be transferred from a lower level Trauma Center to a higher level center (Level IV to Level I, for example), the transferring physician must contact the receiving physician who must accept the transfer of the patient prior to the patient leaving the sending facility.

The transferring physician and facility will ensure the appropriate level of care during transport of the major trauma patient to the receiving Trauma Center.

The receiving facility must accept or be available to accept the major trauma patient prior to the patient leaving the sending facility.

The receiving facility will be given the following information on the patient by fax, phone, or other appropriate means:

- a. Brief History
- b. Pertinent physical
- c. Summary of any treatment done prior to the transfer
- d. Response to therapy and current condition

All appropriate documentation must be available at the receiving facility upon arrival of the patient to the receiving facility (it may be sent with the patient, faxed to the hospital, or relayed by other appropriate means).

The transferring physician's orders shall be followed during transport. Should the patient's condition change during transport the pre-determined on-line or off-line medical control for the transporting agency shall be utilized.

Further orders may be given by the receiving physician.

MPD approved protocols should be followed during transport, unless direct medical orders by the sending or receiving physician are given to the contrary.

All ground interfacility transports must be conducted by a trauma-verified service for trauma system patients.

## **PATIENT CARE PROCEDURE – *Transport of Patients Outside of Base Area***

### ***Standard***

All licensed ambulance and aid services shall comply with the Northwest Region EMS & Trauma System Plan and the State of Washington Prehospital Trauma Triage (Destination) Procedures [Addendum 1] as defined in WAC 246-976-390 - Verification of Trauma Care Services [Addendum 4] and transport trauma patients to the most appropriate designated trauma center or facility.

### ***Procedure***

Patients transferred out of any local base coverage area (from either the base hospital or the field) are initially the responsibility of local on-line medical control. Prehospital personnel will follow local prehospital protocols. Initial orders, which are consistent with local prehospital protocols, will be obtained from base station on-line medical control.

When the transport service crosses into destination jurisdiction, the destination on-line medical control shall be contacted and given the following information:

1. Brief history
2. Pertinent physical findings
3. Summary of treatment (per protocols and per orders from base medical control)
4. Response to treatment
5. Current condition

The destination medical control physician may add further orders provided they are within the capabilities of the transport personnel.

The nearest trauma center base station will be contacted during the transport should the patient's condition deteriorate and/or assistance is needed. The transport unit may divert to the closest trauma center as dictated by the patient's condition.

**PATIENT CARE PROCEDURE – *Activation of Air Ambulance for Field Response to Major Trauma***

***Standard***

All licensed ambulance and aid services shall comply with the Northwest Region EMS & Trauma System Plan and the State of Washington Prehospital Trauma Triage (Destination) Procedures as defined in WAC 246-976-390 - Verification of Trauma Care Services [Addendum 5] and transport trauma patients to the most appropriate designated trauma center or facility.

***Procedure***

The decision to activate air ambulance service for field response to major trauma shall be made by the highest certified responder from the scene with on-line medical control consultation. Where Incident Command System (ICS) is used, the commander shall be an integral part of this process.

Air ambulance services requested to respond into the Northwest Region will follow their policies for accepting a field mission and their Rotary Wing Primary Service Area criteria [Addendum 8].

## REGIONAL CARE OF THE CRITICALLY ILL AND INJURED CHILD - Triage and Transfer Guidelines

(Adopted by the Governor's EMS & Trauma Care Steering Committee on July 19, 1995)

*Consideration should be given to early transfer of a child to the regional pediatric trauma center when required surgical or medical subspecialty care of resources are unavailable. These include, but are not limited to the following:*

1. **Hemodynamically stable children with documented visceral injury being considered for “observational” management.** Although the efficacy of this approach in selected cases has been well documented, two significant caveats always apply:
  - a) Hemodynamic *instability* mandates immediate operative intervention, and
  - b) Non-operative care is safe only in an environment that provides both close clinical observation *by a surgeon* experienced in the management of childhood trauma and immediately available operative care.
2. **Children with abnormal mental status.** In all but the infant, outcome from closed head injury has been shown to be significantly better for the child than for the adult. Although the quality and timeliness of initial resuscitation are the most important *determinants of outcome* from brain injury, continued comprehensive management in specialized units with multi-disciplinary pediatric critical care teams may provide a more rapid and complete recovery.
3. **Infants and small children.** Severely injured infants and small children are the most vulnerable and, frequently, the least stable trauma victims, because they require the special resources and environment of a regional pediatric trauma center, transfer should occur as soon as safely feasible.
4. **Children with injuries requiring complex or extensive reconstruction.** These services are traditionally most available in hospitals capable of functioning as a regional pediatric trauma center. It is especially important that children with impairments requiring long-term follow-up and supportive care have this provided or at least coordinated by the regional pediatric trauma center. Longitudinal follow-up of the injury-related disability is an essential requirement of the regional pediatric trauma center's trauma registry.
5. **Children with polysystem trauma requiring organ system support.** This is especially important for those patients requiring ventilatory, cardiovascular, renal, or nutritional support. Because these problems usually occur synchronously and require precise interdisciplinary coordination, they are best managed in comprehensive facilities such as regional pediatric trauma centers.

*After airway management and primary resuscitation, consider the following points for transfer guidelines. A collaborative discussion is required between the transferring and receiving attending physicians.*

1. Altered level of consciousness, mental status or declining trauma score (after primary resuscitation and airway management);
2. Head injury requiring CT Scan and/or neurosurgical consultation, for example: with lateralizing signs, seizures, loss of consciousness;
3. Major thoracic injury, e.g.: hemothorax, pulmonary contusion, possible great vessel injury, cardiac tamponade, flail chest;
4. Inability to evaluate abdomen due to mental status or lack of resources such as CT or peritoneal lavage;
5. Suspicion of foreign body in lower airway or main stem bronchi;
6. Unstable spinal fracture, suspected or actual spinal cord injury;
7. Primary accidental hypothermia with core temperature of 32 degrees C or less; or hypothermia with multi-system injury and core temperature of 34 degrees C or less;
8. High risk fractures such as: pelvic fracture, long bone injuries with neurovascular involvement (compromise);
9. Significant penetrating injuries to head, neck, thorax, abdomen or pelvis;
10. Need for mechanical ventilation;
11. Evidence of onset of organ failure, for example: acute respiratory distress syndrome, cardiac, renal or hepatic failure;
12. Cardiac dysrhythmias, cardiac pacing, supraventricular tachycardia, or continuous infusion of one or more inotropic or cardiovascular agents, need for invasive monitoring;
13. Near drowning or asphyxiation with deteriorating mental status or progressive respiratory distress;
14. Burns of greater than 15% of the body (20% of age 10 or greater), 2<sup>nd</sup> degree or greater involving:
  - a. The face, mouth and throat;
  - b. Singed nasal hair;
  - c. Brassy or sooty cough;
  - d. Deep or excessive burns of the hands, feet, joints and/or perineum;
  - e. Electrical injury (including lightning); and/or
  - f. Chemical burns with threat of functional or cosmetic compromise.

Should be transferred to a Regional Burn Center.

Referral to these centers must be protocol-driven and continuously monitored by the quality improvement process. Access to such care must be expeditious and must reflect ONLY medical need.

Adopted from: Resources for Equal Care of the Injured Patient: 1993

Committee on Trauma: American College of Surgeons

**PREHOSPITAL TRAUMA TRIAGE (DESTINATION) PROCEDURE****Purpose**

The purpose of the Triage Procedure is to ensure that **major** trauma patients are transported to the most appropriate hospital facility. This procedure has been developed by the Prehospital Technical Advisory Committee (TAC), endorsed by the Governor's EMS and Trauma Care Steering Committee, and in accordance with RCW 70.168 and WAC 246-976 adopted by the Department of Health (DOH).

The procedure is described in the schematic with narrative. Its purpose is to provide the prehospital provider with quick identification of a major trauma victim. If the patient is a major trauma patient, that patient or patients must be taken to the highest level trauma facility within 30 minutes transport time, by either ground or air. To determine whether an injury is major trauma, the prehospital provider shall conduct the patient assessment process according to the trauma triage procedures.

**Explanation of Process**

- A. **Any certified EMS and Trauma person can identify a major trauma patient and activate the trauma system.** This may include requesting more advanced prehospital services or aero-medical evacuation.
- B. **The first step (1) is to assess the vital signs and level of consciousness.** The words "Altered mental status" mean anyone with an altered neurologic exam ranging from completely unconscious, to someone who responds to painful stimuli only, or a verbal response which is confused, or an abnormal motor response.

The "and/or" conditions in Step 1 mean that any one of the entities listed in Step 1 can activate the trauma system.

Also, the asterisk (\*) means that if the airway is in jeopardy and the on-scene person cannot effectively manage the airway, the patient should be taken to the nearest medical facility or consider meeting up with an ALS unit. These factors are true regardless of the assessment of other vital signs and level of consciousness.

- C. **The second step (2) is to assess the anatomy of injury.** The specific injuries noted require activation of the trauma system. Even in the assessment of normal vital signs or normal levels of consciousness, the presence of any of the specific anatomical injuries does require activation of the trauma system.

Please note that steps 1 and 2 also require notifying Medical Control.

- D. **The third step (3) for the prehospital provider is to assess the biomechanics of the injury and address other risk factors.** The conditions identified are reasons for the provider to contact and **consult with Medical Control** regarding the need to activate the system. They do not automatically require system activation by the prehospital provider.

Other risk factors, coupled with a "gut feeling" of severe injury, means that Medical Control should be consulted and consideration given to transporting the patient to the nearest trauma facility.

Please note that certain burn patients (in addition to those listed in Step 2) should be considered for immediate transport or referral to a burn center/unit.

**Patient Care Procedures**

To the right of the attached schematic you will find the words "according to DOH-approved regional patient care procedures." These procedures are developed by the regional EMS and Trauma council in conjunction with local councils. They are intended to further define how the system is to operate. They identify the level of medical care personnel who participate in the system, their roles in the system, and participation of hospital facilities in the system. They also address the issue of inter-hospital transfer, by transfer agreements for identification, and transfer of critical care patients.

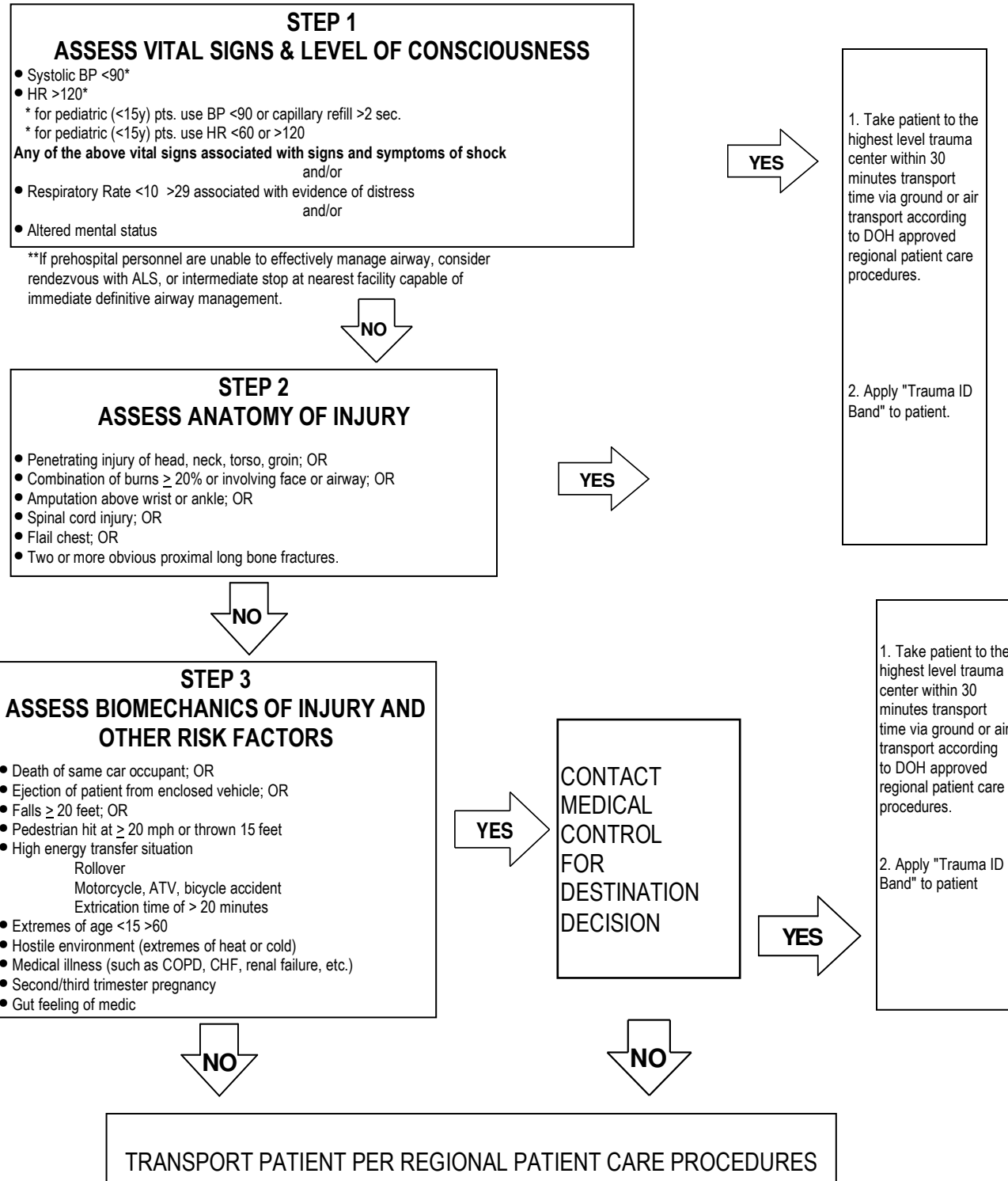
In summary, the Prehospital Trauma Triage Procedure and the Regional Patient Care Procedures are intended to work in a "hand in glove" fashion to effectively address EMS and Trauma patient care needs. By functioning in this manner, these two instruments can effectively reduce morbidity and mortality.

If you have any questions on the use of either instrument, you should bring them to the attention of your local or regional EMS and Trauma council or contact 1-800-458-5281.

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**STATE OF WASHINGTON  
PREHOSPITAL TRAUMA TRIAGE (DESTINATION) PROCEDURES  
EFFECTIVE DATE**

- Prehospital triage is based on the following 3 steps: **Steps 1 and 2 require prehospital EMS personnel to notify medical control and activate the Trauma System. Activation of the Trauma System in Step 3 is determined by medical control\*\***



## ADDENDUM 2

***RCW 70.168.060 - Department duties – Timelines.*** The department, in consultation with and having solicited the advice of the Steering Committee shall:

- (1) By July 1991, design and establish the state-wide trauma care registry as authorized in RCW 70.168.090 to
  - (a) assess the effectiveness of emergency medical services and trauma care delivery, and
  - (b) modify standards and other system requirements to improve the provision of emergency medical services and trauma care

## ADDENDUM 3

***RCW 70.168.090 – State-wide data registry – Quality assurance program – Confidentiality.***

- (1) By July 1991, the department shall establish a state-side data registry to collect and analyze data on the incidence, severity, and causes of trauma, including traumatic brain injury. The department shall collect additional data on traumatic brain injury should additional data requirements be enacted by the legislature. The registry shall be used to improve the availability and delivery of prehospital and hospital trauma care services. Specific data elements of the registry shall be defined by rule by the department. To the extent possible, the department shall coordinate data collection from hospitals for the trauma registry with the state-wide hospital data system authorized in chapter 70.170 RCW. Every hospital, facility, or health care provider authorized to provide level I, II, III, IV, or V trauma care services, level I, II, or III pediatric trauma care services, level I, level I-pediatric, II or III trauma-related rehabilitative services, and prehospital trauma-related services in the state shall furnish data to the registry. All other hospitals and prehospital providers shall furnish trauma data as required by the department by rule.

The department may respond to requests for data and other information from the registry for special studies and analysis consistent with requirements for confidentiality of patient and quality assurance records. The department may require requestors to pay any or all of the reasonable costs associated with such requests that might be approved.

#### ADDENDUM 4

##### ***WAC 246-976-390 – Verification of trauma care services***

(1) Verified aid services must meet the following minimum agency response times for all major trauma responses to response areas as defined by the department and identified in the regional plan:

- (a) To urban response areas: Eight minutes or less, eighty percent of the time;
- (b) To suburban response areas: Fifteen minutes or less, eighty percent of the time;
- (c) To rural response areas: Forty-five minutes or less, eighty percent of the time;
- (d) To wilderness response areas: As soon as possible.

#### ADDENDUM 5

##### ***WAC 246-976-390 – Verification of trauma care services***

(1) Verified ground ambulance services must meet the following minimum agency response times for all major trauma responses to response areas as defined by the department and identified in the regional plan:

- (a) To urban response areas: Ten minutes or less, eighty percent of the time;
- (b) To suburban response areas: Twenty minutes or less, eighty percent of the time;
- (c) To rural response areas: Forty-five minutes or less, eighty percent of the time;
- (d) To wilderness response areas: As soon as possible.

(12) Verified air ambulance services must meet minimum agency response times as identified in the state plan.

#### ADDENDUM 6

##### ***Simple Triage and Rapid Treatment Triage Protocol (START Triage)***

1. **RPM** method of identifying immediate patients:  
**Respirations; Perfusion; Mental status**
2. Triage Criteria
  - A. Immediate (RED)  
Respiration >30 per minute or absent until head repositioned, or radial pulse absent or capillary refill >2 seconds, or can not follow simple commands
  - B. Delayed (YELLOW)  
Respiration's present and <30 per minute, and radial pulse present and can follow simple commands ■ The saying is 30 – 2 – can do, represents a delayed patient
  - C. Minor (GREEN)  
Anyone that can get up and walk when you instruct them to do so
  - D. Deceased (BLACK)  
Anyone not breathing after you open the airway
3. This system is limited to use in the incident where needs exceed resources immediately available
4. Frequently reassess patients and perform a more in-depth triage as more rescuers become available

ADDENDUM 7

***RCW 70.170.060 – Charity care – Prohibited and required hospital practices and policies***

(2) No hospital shall adopt or maintain practices or policies which would deny access to emergency care based on ability to pay. No hospital which maintains an emergency department shall transfer a patient with an emergency medical condition or who is in active labor unless the transfer is performed at the request of the patient or is due to the limited medical resources of the transferring hospital. Hospitals must follow reasonable procedures in making transfers to other hospitals including confirmation of acceptance of the transfer by the receiving hospital.

EMTALA federal guidelines will also be followed.



**Appendix 5.**  
**July 2009- June 2012 Regional Plan Gantt Chart**

## APPENDICES - ADDITIONAL

**Appendix A.**

**Appendix B.**