Taking the Pulse of Washington’s EMS and Trauma Care Regions
Implementation of Washington’s Regional Quality Assurance/Improvement Programs
History of Clinical QA/QI in Trauma Care

• In 1976, an American College of Surgeons (ACS) task force on trauma delineated the resources, facilities and personnel that should be available for the treatment of seriously injured patients.

• The 1985 National Academy of Sciences (NAS) report, “injury in America: A Continuing Public Health Problem,” determined personnel, training, and environmental causes that lead to deviations from standard trauma care.

• In 1987, a subcommittee of the American College of Emergency Physicians (ACEP) developed guidelines for trauma care systems.

• In 1989, for the first time the American College of Surgeons (ACS) published a set of trauma care guidelines. Since then, several updates came out.
The EMS/TC Act of 1990 mandated that QA/QI be an integral component of the system.

In Oct 1994, the DOH released a guidance report for “Quality Management in Regional EMS and Trauma Systems.

During 1995-1997, regional EMS and trauma QA/QI forums are established and adopted their first QA/QI plans.

The QA/QI committees are autonomous entities lead by the highest level hospital in the region, separate from the regional EMS and Trauma Councils.
The regional QA/QI committees are NOT a sub-committee under the Regional Council; They are independent forums.

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<tr>
<th>Regional Council</th>
<th>Regional QI</th>
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<td>RCW 70.168.100</td>
<td>RCW 70.168.090</td>
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**Operational** Evaluation:
- Identify current services and resources
- Monitor need for services and resources (min/max numbers)
- Monitor regional operation procedures (PCP’s)
- Establish and monitor regional standards (may be higher than state standards) such as response times
- Focus injury prevention efforts

**Clinical** Evaluation:
- Clinical Care
  - Death review
  - Case presentations
  - Focused clinical review (ex. spleen injuries)
- Clinical Process Review
  - Patient flow (appropriateness of transfers)
  - Trauma team activation
  - ED LOS
  - Pre-hospital times, etc.
- Clinical Education
- Clinical Collaboration
Why do Clinical Quality Improvement/Assurance?

- To improve clinical care and lower trauma mortality and morbidity by:
  - Identifying the problems that are arising due to correctable factors.
  - Assuring that corrective action is taken to remedy these problems.
  - Assessing whether they have been successful in correcting the problem (Loop Closure).
Is Regional QA/QI Different from Facility (Hospital) QA/QI?

- **Patient Diagnostics** evaluates baseline injuries and illnesses of patients undergoing care.
- **Facility QA/QI** evaluates patient outcomes and care components provided by different providers.
- **Regional QA/QI** evaluates how the regional system functions to determine continuing effectiveness in the management of patients.
- **Statewide QA/QI** evaluates overall patient outcomes and system performance in the state.
How do Facility and Regional QA/QI Activities Relate to Each Other?

**General Outline**
- Focus
  - Methodology (Resources)
  - Process
- Outcome

**Facility QI**
- Facility QI: Individual Patients and Providers
  - ACS Guidelines
  - Treatment Given and Response to Given Treatment
  - Complications of Care
    - TRISS Analysis, Morbidity and Mortality Reviews of Individual Patients

**Regional QI**
- Regional QI: System Components
  - ACEP System Guidelines
  - System Access, Triage Protocols, Transport Times, Inter-hospital Transfers
  - Rates Measuring Specific Morbidity and Mortality Indicators
Regional EMS and Trauma QA/QI Process in Washington State

• The EMS/TC Act of 1990 mandated that:
  – Within each region, level I, II, and III hospitals are responsible for establishing and participating in regional QA/QI programs.
  – All designated trauma services in the state shall deposit their trauma data in the state registry.
Components of Regional Care Systems

- Prevention
- Pre-hospital/EMS Care
- Hospital-Based Emergency Care
- Hospital Care
- Post-Discharge Care
Who Attends Regional QA/QI Meetings

• At least one member from each designated trauma service.
• An EMS provider and a member of the regional council.
• A member from outside of the region when there is joint designation.
• MPDs and all other providers and facilities providing trauma care must be invited.
The EMS/TC Act of 1990 is Clear About the Confidentiality Requirements for the Regional QI/QA Activities

- The information collected, used, or shared for the regional QI/QA activities is strictly confidential for open and frank discussion of data.
- The information is not discoverable by subpoena.
- The statue requires attendees to sign confidentiality agreements at each meeting.
Underlying Principles, Processes, and Operations Guiding Regional QA/QI Processes

• Independent forums are separate from the Regional Councils.
  • The regional QA/QI committees are NOT a sub-committee under the Regional Council.

• The statue is deliberately vague about internal operations of the regional QA/QI programs:
  – To empower regions to establish their own programs.
  – To address specific QA/QI needs in each region.
  – The template on the next slide is a summary of a variety of QI activities as observed in several regions with strong QA/QI programs.
A Typical Regional QA/QI Process at Work

• Provide brief reports of QI activities from EMS and each participating hospital
• Provide a brief report of regional and statewide QI activities
• Focused review of items of major concern/impact including system analysis using WTR and reviews of selected cases
• Develop consensus on regional QA/QI concerns
• Develop an action plan for the next steps
• Evaluate effectiveness of action plan results
Document, Document, and Document

- Document all activities including recommendations for change or specific actions taken in:
  - Meeting agendas
  - Minutes
  - Regional QA/QI plans
  - Tracking tools to capture specific activities
Specific Regional QA/QI Activities Done During The Last Year

**General Outline**
- Focus
- Methodology (Resources)
- Process
- Outcome

**Specific QI Activities Done**
- Reviews of WTR Data and Patient Charts to Identify Issues of Major Concern
- Calculations of Risk-Adjusted Rates, Process Control Charts, and Case Reviews
- Presentations on Trauma Care Process; Patient Flows; Pre-hospital, Hospital, Pediatric and Geriatric Care
- Risk-Adjusted Mortality Comparisons
Identifying QA/QI Issues of Major Concern

• Emerging trends or care issues (e.g., Elderly falls and geriatric trauma care)

• Patient care process issues (control charts using audit filters for patient care and transfer patterns)

• System outcomes (e.g., Risk-adjusted hospital mortality comparisons)
Experiences of Regional QA/QI Chairs: Panel Forum

- What regional QA/QI issues were identified
- How they tackled these problems
- Achievements and challenges