

Acronyms

Abbreviated Injury Scale – AIS

Arkansas Trauma Call Center - ATCC

Arkansas Trauma Registry – ATR

Follow Up – F/U

For Your Information - FYI

Injury Severity Score – ISS

International Classification of Disease – ICD

Opportunity (s) for Improvement – OFI

Quality Improvement – QI

Trauma Advisory Council – TAC

Trauma Medical Director – TMD

Trauma Program Manager/ Trauma Nurse Coordinator – TPM/ TNC

Trauma Regional Advisory Council – TRAC

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Arkansas Department of Health

Trauma Quality Improvement Plan

Mission and Goals of the Trauma QI Program

The Trauma Quality Improvement (QI) State Plan is designed to ensure quality patient care that is facilitated by continuous, systematic and objective data analysis through multidisciplinary peer review. The purpose is to identify opportunities to improve patient outcomes through all phases of trauma care. The ultimate goal is to reduce mortality and morbidity in the Trauma patient population.

I. Trauma Center QI Program

A. Patient Population

Trauma patients are defined by the inclusion criteria contained in **Appendix A**.

B. Administrative Structure

Quality Improvement consists of ongoing evaluation of all facets of trauma care provided to the trauma patient. The Trauma Medical Director and Trauma Program Manager provide ongoing and systematic monitoring of care provided by medical, nursing, and ancillary personnel. Quality Improvement review consists of the utilization of state pre-selected quality improvement “audit filters” and additional hospital and regional indicators. In addition, a process of tracking complications, systems issues, provider issues, and adverse events is determined. The Trauma Program Manager will report all issues and opportunities for improvement to the Trauma Medical Director for determination of the need for further review via the two part *Trauma Multidisciplinary Review Process*. Documentation of the resolution of identified issues (loop closure) is the responsibility of the Trauma Medical Director and the Trauma Program Manager.

The use of indicators to measure, evaluate, and improve performance is an important component of the Trauma Quality Improvement Plan. Required QI measures and suggested measures are contained in **Appendix B**.

C. Data Collection and Analysis

Concurrent and retrospective data is collected and entered in the Arkansas Trauma Registry. Data definitions are consistent with those of the Arkansas Trauma Registry Data Dictionary.

<http://www.healthy.arkansas.gov/programsServices/healthStatistics/Documents/Trauma/ArkansasTraumaDataGuide.pdf>

Data sources for the collection of this information include:

- Hospital Medical Record

- Pre-hospital Patient Care Report (run sheets)
- Referring Hospital Record
- Medical Examiner Reports

D. Quality Improvement Process

1. First Level of Review

The Trauma Program Manager or designee will do the initial case review of all trauma patients. Appropriate clinical care without provider or system issues identified will need no further review. It is desirable that a “Trauma Review Form” or “Trauma Coversheet” (see **Appendix C**) be filled out on each trauma patient meeting registry criteria.

2. Second Level of Review

Opportunities for improvement in the system or provider and sentinel events are referred to the TMD. The TMD and the TPM will perform the second level of review. Further analysis of the case and issue(s) identified will occur. Those cases in which a simple action plan, such as trending of the issue, targeted education, provider counseling or discussion is the only corrective action identified need not proceed to the next level of review. Deaths, required critical events (As defined in **Appendix B**), and cases involving more than one service or provider with opportunities for improvement should be elevated to the Third Level of Review.

Trauma QI issues will be documented internally on the “Trauma Review Form” in **Appendix C**. This form tracks all patient care issues, serves as a reference for all QI activity, and assures proper documentation and loop closure by tracking all aspects of the case review to include:

- Clinical summary,
- Trauma Medical Director review,
- Judgment of committee,
- Corrective actions,
- Re-evaluation and loop closure date.
- Referral to TRAC for further review and QI with feedback to hospital by TRAC within defined time limits

3. Third Level of Review

Tertiary Review will occur at the committee level in the Trauma Multidisciplinary Review Process. Cases for tertiary review may be referred to as the *Trauma Peer Review Committee, Trauma Operational Committee, and/or Hospital Quality Committee*.

4. Purpose of the Third Level of Review Meetings

The third level of review has a two part structure, the closed peer review committee meeting and the open trauma program operations review committee. The closed peer review meeting is where specific cases are reviewed. The trauma program operations review meeting is a structured meeting in which system changes or findings from the closed peer review session are discussed. These two meetings are often held together, however, separate minutes and sign-in sheets should be kept for each meeting. It is

important to have representation from all hospital and pre-hospital representatives. Attendance requirements for these meetings are outlined in the rules.

1. Trauma Peer Review Committee- deals with specific cases and provider issues that arise. These include issues such as :
 - i. Timeliness of response to a high level activation
 - ii. Appropriateness of evaluation and treatment
 - iii. Appropriateness of admission or transfer
 - iv. Trauma Death

2. Trauma Program Operations Review Committee – issues identified in the peer review that deal with the system of care in the facility are appropriate to discuss in this venue. These include issues such as:
 - i. Creation of Trauma Activation Criteria
 - ii. Creation of clinical practice management guidelines or protocols
 - iii. Process for utilizing a call team for OR cases
 - iv. Determination of additional requirements for service on the trauma call panel
 - v. Review of call volume / referral / transfer volume

A judgment will be rendered by the peer review committee with regards to the appropriateness of the issue referred for further review and on all mortality being reviewed according to the following metrics:

Mortality:

- Unanticipated Mortality with OFI
- Anticipated Mortality with OFI
- Mortality without OFI

Other Issues:

- Cannot be determined
- Appropriate Care without OFI
- Appropriate Care with OFI
- Inappropriate Care with OFI

Further recommendations for quality improvement based on tertiary review will be made to the relevant hospital committees who, with the trauma program, are responsible for loop closure.

5. Quality Improvement Action Plan

All corrective action planning and implementation from the above mentioned reviews will be overseen by the Trauma Medical Director and Trauma Program Manager. Possible corrective actions may include:

- Trend
- Guideline or Protocol
- Letter with Follow-up Required
- Education-Specify:
 - Enhanced Resources, Facilities, Communication
- FYI Letter
- Referral for M&M Peer Review/Operational Committee Presentation
- Referral to ATCC

- Referral to regional TRAC
- Referral to State TRAC / QI Committee

6. Loop Closure and Re-Evaluation

An essential component in Quality Improvement is demonstrating that a corrective action has had the desired effect. The outcome of any action plan will be monitored for expected change and re-evaluated accordingly so that the QI loop can be closed. No issue will be considered as “closed” until the re-evaluation process has been complete and it demonstrates a measure of performance that has been deemed acceptable. This evaluation usually occurs within three to six months of the corrective action.

Documentation should include the following aspects of follow-up and re-evaluation:

- Time Frame for Re-evaluation
- Documentation of Findings
- Results of Re-monitoring
-

7. Hospital Quality Improvement Summary

Trauma QI issue reports are prepared in summary format of problem identification and resolution. These reports are then integrated into the Hospital Quality Department through reporting of committee meeting minutes. A summary format can be found in **Appendix E**.

II. Trauma Death Reporting

1. Trauma Deaths

- A trauma death is being defined as any patient that arrives at the hospital that meets the following criteria: is treated at the scene and dies, dies enroute, arrives to the hospital pulseless (whether CPR is in progress or not), is transferred to another and dies, or dies while admitted to the hospital (this does not include transfers to hospice or long term care) that has received a trauma band and is in the Arkansas trauma system.
- After going through the hospital’s internal QI review, all trauma deaths are to be submitted to the appropriate State Trauma Nurse Coordinator on the Trauma Death Form (**Appendix G**). Instructions for this Form can be found in **Appendix H**. All hospital TPM’s are responsible for getting the death forms to the State Trauma Nurse Coordinator in a timely manner.
- The State Trauma Nurse Coordinator will send the death form to respective TRAC QI Chair for review by the TRAC QI Chair and TRAC TMD.
- The TRAC QI Chair will review the case with the TRAC MD to identify any opportunities for improvement in the system, hospital, provider’s care, etc.
- After their review, it will result in one of the following :
 - Hospital FYI
 - Trend
 - Referral to Regional TRAC
 - More information from hospital
 - Referral to the State TRAC/QI Committee

III. TRAC Quality Improvement Process

1. The TRAC QI Committee will review data from the following areas:
 - a. The TRAC will receive concerns and issues referred by the trauma centers or other trauma providers in its region and review and make recommendations for quality improvement and improved patient outcomes. Issues referred to the regional TRAC for a focused review will be handled in the same general fashion as at the trauma center level.
 - b. Trauma Deaths referred to the QI Chair by each hospital if discussion and direction are needed from the TRAC QI Committee
 - c. The TRAC will also review, on a quarterly basis, the summary reports provided by the Arkansas Trauma Registry from each Trauma Center in its region in order to identify QI issues, solutions, or common trends.
 - d. The TRAC may review additional data reports or scorecards provided by the Trauma Registry, the ATCC, Trauma Section, or EMS Section.
2. The leadership of each TRAC will review these concerns, issues, and data and then direct them to the appropriate sub-committees of the TRAC as is appropriate. Cases for TRAC review may be referred to the TRAC QI Committee for provider-related and/or system based quality improvement.
3. Once the TRAC QI Committee has reviewed, discussed, and arrived at quality improvement recommendations, a summary of those discussions and recommendations will be provided to the full TRAC meeting for educational opportunities.
4. For issues that transcend the boundaries of a given TRAC, those concerns and recommendations will be referred to those respective TRACs. That TRAC will research, analyze, and discuss the referral QI concern and respond back to the originating TRAC with any salient findings or recommendations. Communication and problem resolution between various TRACS is encouraged and expected.
5. A summary form: TRACs shall complete a case summary form (**Appendix F**), capturing the essence of each case reviewed by the TRAC, along with any findings, recommendations, or referrals. This will be used to record those essential facts.
6. State-wide and TRAC specific data will also be sent at regular intervals from the Trauma Section to each TRAC for comparison purposes and quality improvement identification. New audit filters will be sent down to the respective TRACs as new concerns and issues are identified to be added to each TRAC and trauma center's ongoing trauma review.

IV. State TRAC / QI Committee (TRAC / QI) Quality Improvement Process

1. The TRAC / QI Committee of the Governor's Trauma Advisory Council will receive concerns and issues referred by the various TRACS, trauma centers, or other trauma providers in the state and review and make recommendations for quality improvement and patient safety. Issues referred to the TRAC / QI will be handled in the same general fashion

as at the TRAC level [see above]. Any issues should be communicated to the State TRAC/QI Committee on the case summary form (**Appendix F**).

2. The TRAC / QI will also review longitudinal data from the state, TRACs, and trauma centers among other sources, to identify areas of concern, opportunities for improvement, and trends in mortality and morbidity due to trauma. The TRAC / QI will then analyze and propose to the TAC new audit filters, QI programs, or other measures that will then be approved and forwarded to the TRACs and trauma centers for use in their QI programs.
3. Confidentiality and protection of QI information and processes: All quality improvement activities that are a component of the Trauma Quality Improvement peer review committee, or that are related to the treatment of specific patients are confidential. QI issues that involve outside agencies or hospitals that cannot be adjudicated and resolved at the hospital or TRAC level should be referred to the TRAC / QI Committee of the Trauma Advisory Committee. The following language should be included in all documents used in QI processes:

Confidentiality

Please be advised that the information contained in this trauma quality improvement document is protected under Code Ann. § 20-13-801 et seq., and all data, records, reports as well as documents and information associated with this document shall be strictly confidential and protected from disclosure pursuant to Ark. Code Ann. § 20-13-806 and Ark. Code Ann. § 20-13-819. Any data, records, reports, and documents collected or compiled by or on behalf of the department, the trauma advisory council, or other entity authorized under this subchapter for the purpose of quality or system assessment and improvement shall not be admissible in any legal proceeding and shall be exempt from discovery and disclosure to the same extent that records of and testimony before committees evaluating the quality of medical or hospital care are exempt under § 16-46-105(a)(1)d.

APPENDIX A

Arkansas Trauma Registry Patient Inclusion Criteria

Definition: To ensure consistent data collection across the state, a trauma patient is defined as a patient sustaining a traumatic injury and meeting the following criteria:

At least one of the following injury diagnostic codes defined in the International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM): **800-959.9, 987.9 (Smoke Inhalation), 994.0 (Lightning), 994.1 (Drowning and nonfatal submersion), 994.7 (Asphyxiation and Strangulation, includes Hanging), 994.8 (Electrocution), E-code 905.0 (Snakebites, venomous), or E-code 906.0 (Dog bite).**

Excluding the following isolated injuries:

- 905-909.9 (late effects of injury)
- 910-924.9 (superficial injuries, including blisters, contusions, abrasions, and insect bites)
- 930-939.9 (foreign bodies)
- Same level fall in patients > 65 with isolated hip fracture (ICD-9 Codes 820.0 – 820.8)

AND MUST INCLUDE ONE OF THE FOLLOWING IN ADDITION TO ICD-9-CM:

- Hospital admission for injury. Hospital admission is defined as ED disposition other than out of hospital destination (home, jail, back to skilled nursing facility or other institutional care, etc.). Excludes ED disposition to L&D for monitoring. Excludes hospital admission for reasons other than trauma, i.e., diagnostic work-up for chest pain/syncope, medical management of medical condition (dehydration, diabetes, HTN, etc.), psychiatric related concerns
- Death resulting from the traumatic injury (independent of hospital admission or hospital transfer status)

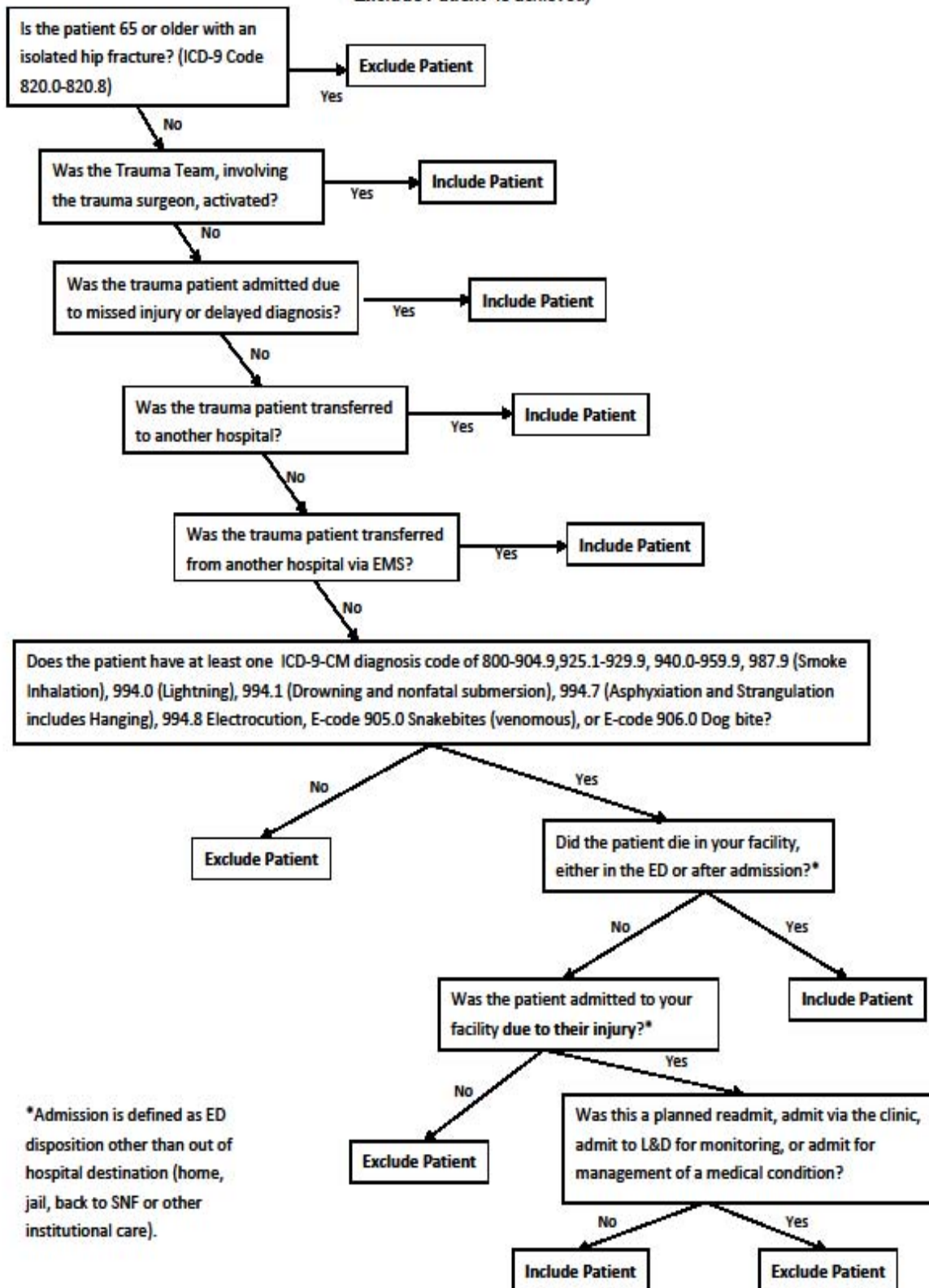
AND EXCLUDES:

- Planned readmits or elective admits via the clinic

Other System Inclusion Criteria:

- All trauma team activations involving the trauma surgeon
- Any admission post ED/Hospital discharge that occurs as a result of missed injury or delayed diagnosis
- Any hospital to hospital trauma transfer via EMS
- Trauma transfers out to a hospital via Private Vehicle

Trauma Registry Inclusion Criteria (Follow downward until an "Include Patient" or "Exclude Patient" is achieved)



APPENDIX B

The following are examples of indicators used to measure, evaluate, and improve trauma center/system performance.

Process Measures

State Filters:

- All Trauma Deaths

Hospital Filters:

- Lack of Top Tier Trauma Team activation for
 1. confirmed hypotension (< 90mmHg adults or age appropriate for children) attributed to trauma;
 2. GCS < 9 with a mechanism due to trauma (general surgeon response can be at the discretion of the ED physician);
 3. respiratory distress attributed to trauma;
 4. gunshot wound to the neck, chest or abdomen;
 5. transfer of a patient from another facility receiving blood or pressure support to maintain vital signs; and,
 6. any patient for whom the ED physician feels the highest level of activation is warranted.
- Trauma patients with ISS > 15 and referring ED LOS > two hours for patients transferred out
- All requests for urgent trauma transfer out of ED (reported by transferring facility)
- First ED GCS of < 9 without intubation, either in-field or within 30 minutes of arrival at ED
- All Trauma Deaths

Ortho:

- Time from injury to washout for open fractures;
- Time from injury to ORIF for femur fracture; and,
- Appropriateness and timing of IV antibiotics for all open fractures

Neuro:

- All cases requiring the backup to be called in, or the trauma center is Charlie Temp or bypassed due to unavailability of the neurosurgeon on-call; and,
- Neuro trauma care shall be reviewed for compliance with the Brain Trauma Foundation Guidelines.

Geriatric:

- The facility shall have a protocol for the admission and care of geriatric/special needs patients (age > 65 years) and track it in the QI process

- There shall be a protocol in place in the facility for the rapid evaluation of patients with head injuries who are on anticoagulants, which shall include a component addressing the rapid reversal of such agents when possible. The protocol may exclude patients who are on aspirin only. This shall be tracked in the QI process

Anticoagulation:

- (8.13) Facilities shall have a protocol for the rapid reversal of anticoagulants when available and track it in their QI process

Other:

- Deviations to the Consultant Coverage policy shall be tracked in the QI process.
- The availability of the anesthesia services and the absence of delays in airway control or operations are documented by the trauma QI program.
- Demonstration of the attending surgeon's prompt arrival for patients with appropriate activation criteria shall be monitored by the hospital's trauma QI program.
- The facility shall determine the expectation for physician response to the various levels of activation and be able to track this as part of the QI program.
- The facility shall be able to demonstrate under and over-triage rates based on activation criteria.
- The QI program evaluates OR availability and delays when an on-call team is used.
- The PACU is covered by a call team from home with documentation by the QI program that PACU nurses are available and delays are not occurring.
- The QI program ensures that the PACU has the necessary equipment to monitor and resuscitate patients.
- The blood bank shall have an adequate supply of red blood cells available with additional red blood cells, fresh frozen plasma, platelets and cryoprecipitate to meet the needs of injured patients through a regional source and tracked through the QI program
- Changes in radiology interpretation shall be monitored through the QI program.
- The program shall monitor transfers in its QI program and be able to demonstrate compliance.
- The acceptance time of transfers shall be tracked in the facility's QI program.
- Denials for acceptance of transfers shall be tracked through the trauma program's QI process
- Utilization of the ATCC shall be actively tracked in the facility's QI program with a list of all patients transferred out with the corresponding trauma band number.
- All diversions (Bravo, Charlie Temp, and Delta) shall be documented and tracked in the hospital's trauma QI program

- The facility shall track and trend the cases that trigger one of the state audit filters.
- Identified problem trends shall undergo review in the multidisciplinary QI meetings with action plans generated, documented, and followed by loop closure.
- All Non-surgical admit patients not meeting criteria 2-5 on page 53, 74, and 90 of the *Rules* shall be reviewed in the QI meeting for appropriateness of admission to a non-surgical service.
- Trauma patients admitted that develop complications or required transfer to a higher level of care(complication is defined as any untoward event causing increased length of stay, resource utilization, morbidity, mortality)
- EMS run report not left at hospital by EMS personnel
- Infusion of more than 40ml/kg crystalloid within 2 hours in a pediatric patient with normal vital signs
- Readmission or return to the ED within 72 hours

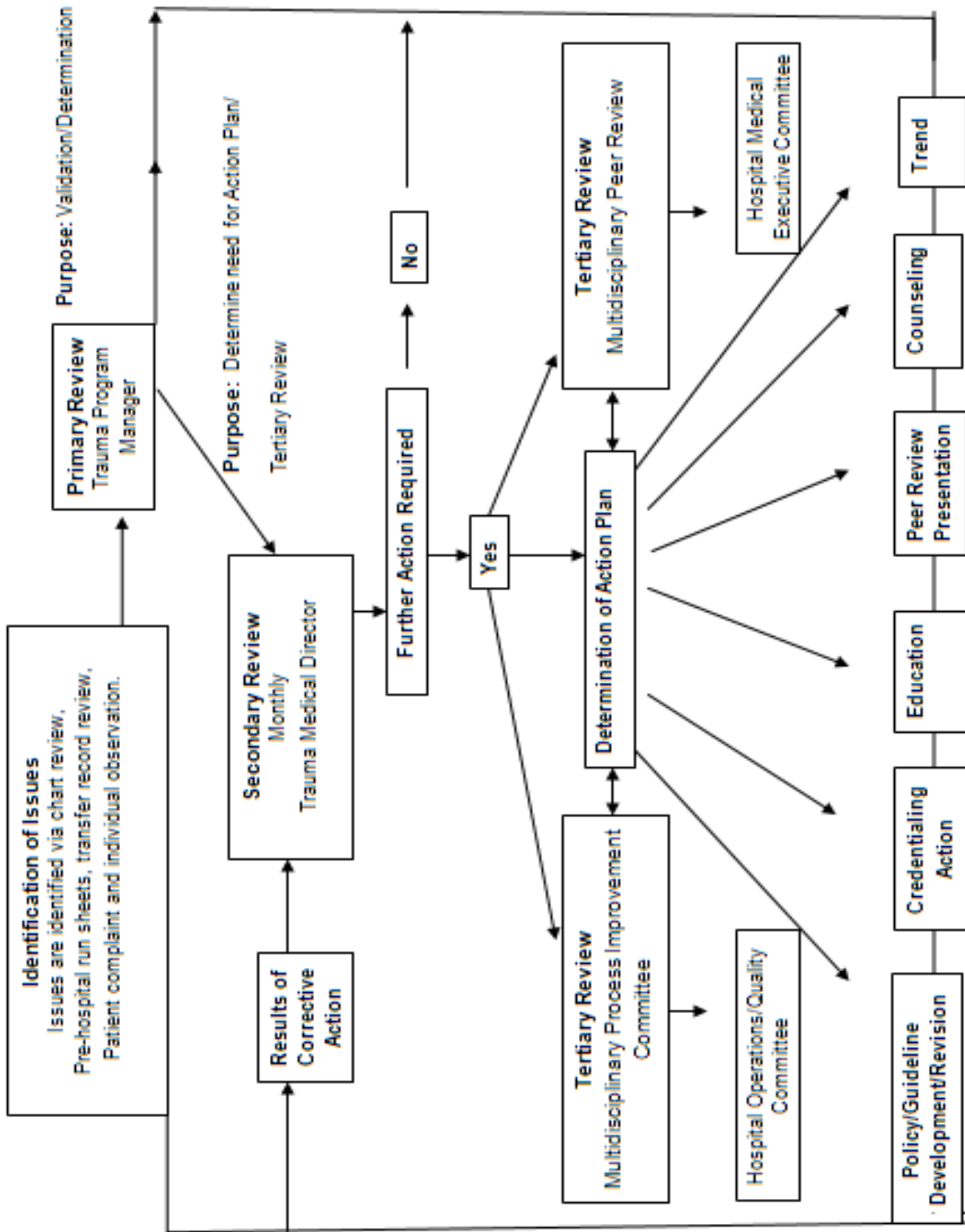
APPENDIX C

QUALITY IMPROVEMENT REVIEW FORM

Patient Name:		Age:	Trauma Reg #:	Med Rec#
Admit Date:	Secondary Review Date:		M.D./Service:	Trauma Band #
QI Case Summary:				
Clinical Indicators:			Determination:	Preventability:
<input type="checkbox"/> Trauma Death (Date: _____ Time: _____)				
<input type="checkbox"/> Trauma patients with ISS > 15 and ED length of stay > 2 hours for patients transferred out				
<input type="checkbox"/> Lack of Top Tier Trauma Team activation for all patients with initial ED BP < 90/age				
<input type="checkbox"/> All requests for urgent trauma transfer out of ED				
<input type="checkbox"/> First ED GCS of < 9 without intubation, either in-field or within 30 minutes of arrival at ED				
<input type="checkbox"/> Other (please specify)				
<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				
Determination: SR = System Related DR = Disease Related PR = Provider Related		Death Preventability: UM = Unanticipated Mortality with OFI AM = Anticipated Mortality with OFI M = Mortality without OFI CD = Cannot be determined	Contributing Factors/Judgment: 1. Delay in Diagnosis 6. Error in Technique 2. Error in Diagnosis 7. Equipment Issue 3. Error in Management 8. Triage Issue 4. Communication Issue 9. Other _____ 5. Timeliness/Availability	
			Opportunity for Improvement <input type="checkbox"/> Yes <input type="checkbox"/> No	
Trauma Director/Other Physician Review:				
Signature:			Date:	
Quality Improvement Actions (s):			Date Completed	
<input type="checkbox"/> None Required				
<input type="checkbox"/> Trend				
<input type="checkbox"/> Guideline or Protocol				
<input type="checkbox"/> Letter with Follow-up Required				
<input type="checkbox"/> Education-Specify:				
<input type="checkbox"/> Enhanced Resources, Facilities, Communication				
<input type="checkbox"/> FYI Letter				
<input type="checkbox"/> Counseling				
<input type="checkbox"/> M&M Peer Review/Operational Committee Presentation				
<input type="checkbox"/> Privilege or Credentialing Action				
<input type="checkbox"/> Referral to _____				
<input type="checkbox"/> TRAC QI Committee				
RE-EVALUATION DATE(S):			Corrective Action Follow-up Notes:	
LOOP CLOSURE DATE:				

APPENDIX D

TRAUMA PERFORMANCE IMPROVEMENT PROCESS: LEVELS OF REVIEW



CORRECTIVE ACTION IMPLEMENTED, RESULTS TRACKED AND DOCUMENTED

Appendix E

														Pt. Number
														Peer Review
														No Issues
														Surgeon Response Time > 30 Min
														Missed Activation
														Transport Arrival Time > 30 Min
														First ED GCS < 9 W/O Intubation in field or ED
														OR Time > 2HRs
														Definitive Airway Not Secured within 5 Min of Arrival
														Lack of Proper Documentation
														Denial of transfer to Higher Level
														Missed Injury
														Death
														Diagnostic Studies > 30 Minutes
														I/O > 2 & ISS > 9
														Requested Urgent Transfer
														Pediatric Pt
														Action Plan
														Follow-up on:
														Date/Time
														Loop Closed
														Comment

APPENDIX F

Case Summary Form

Arkansas Trauma Regional Quality Improvement Form For Trauma QI Referrals

Purpose: The purpose of this referral is to improve the quality and efficiency of patient care within the Trauma System in Arkansas. This form is intended to relay both positive and negative comments regarding Trauma Patient Care/Patient Flow within the Regional Trauma Triage Plan Submission of this document triggers further review of the specific incident. All information obtained through this process will remain confidential. This information will be used by the TRACS for purposes of Quality Improvement (QI) to result in improved patient care.

This form may be submitted anonymously. However, to receive feedback and to allow us to contact you for additional information, we must have your name and email address. All MIR information is confidential.

Your Name:

Your Facility:

Your E-mail Address:

Agency/Facility targeted for QI:

Trauma Band #:

Receiving Hospital:

Date Received by hospital:

Injury Diagnosis:

Purpose of the Referral	
<input type="radio"/> Patient Care Issue	<input type="radio"/> Patient transported to inappropriate Facility
<input type="radio"/> Equipment Issue	<input type="radio"/> Severe Trauma not transferred Out
<input type="radio"/> Regional Protocol Issue or Recommendation	<input type="radio"/> Delayed Transfer
<input type="radio"/> Other	<input type="radio"/> Inappropriate Use of Air Medical Resources

Description of Events:

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**Arkansas Trauma Regional Quality Improvement Form
For TRAC Discussion and Recommendation**

Date Received:

Region:

Date of Review by TRAC QI Committee:

Discussion/Outcome:

Summary of TRAC findings:

Areas of Potential Improvement Identified by the TRAC:

- 1.
- 2.
- 3.

Recommendations for Trauma System Quality Improvement:

- 1.
- 2.
- 3.

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Appendix G

TRAUMA DEATH QUALITY IMPROVEMENT FORM

This is a **privileged** and **confidential** document. The contents shall not be disclosed to any person, agency or entity not directly associated with hospital peer review or the TRAC quality improvement process. The Trauma System Act (Ark. Code Ann., Section 20-13-819 et seq) authorizes this process. Violations of privacy and security requirements may lead to civil and criminal penalties pursuant to state and federal laws and regulations.

		Findings at Reporting Facility					
		Determination:	OFI (s):	Preventability:	CF/J:		
Trauma Death (A trauma death is being defined as any patient that is treated at the scene and dies, dies enroute, arrives to the hospital pulseless (whether CPR is in progress or not), or dies while admitted to the hospital (this does not include transfers to hospice or long term care) that has received a trauma band and is in the Arkansas trauma system.)							
Determination: ISR = Internal (Hospital)System Related ESR=External System Related DR = Disease Related PR = Provider Related	OFI: UM = Unanticipated Mortality with OFI AM = Anticipated Mortality with OFI M = Mortality without OFI CD = Cannot be determined	Contributing Factors/Judgment: <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"> 1. Delay in Diagnosis 2. Delay in Decision to Transfer 3. Delay in Acceptance of Transfer/Urgent Transfer 4. Delay in Communication with ATCC 5. Delay in Contacting EMS 6. Delay in Executing Transfer by EMS 7. Error in Diagnosis 8. Error in Judgment 9. Error in Technique 10. Error in Management </td> <td style="width: 50%; border: none;"> 11. Communication Issue 12. Equipment Issue 13. Triage Issue 14. Failure of Scene EMS to Contact ATCC 15. Incorrect Recommendation by ATCC 16. Transport Availability Issue 17. Service not allowed to Intubate 18. Other </td> </tr> </table>				1. Delay in Diagnosis 2. Delay in Decision to Transfer 3. Delay in Acceptance of Transfer/Urgent Transfer 4. Delay in Communication with ATCC 5. Delay in Contacting EMS 6. Delay in Executing Transfer by EMS 7. Error in Diagnosis 8. Error in Judgment 9. Error in Technique 10. Error in Management	11. Communication Issue 12. Equipment Issue 13. Triage Issue 14. Failure of Scene EMS to Contact ATCC 15. Incorrect Recommendation by ATCC 16. Transport Availability Issue 17. Service not allowed to Intubate 18. Other
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Opportunity for Improvement: <input type="checkbox"/> Yes <input type="checkbox"/> No	Preventability: FP=Frankly preventable PP=Possibly preventable NPA=Non-preventable care appropriate NPO=Non-preventable OFI NPC=Non-preventable no care						
Trauma Band #:	Trauma Registry #:	Age:	ISS:	TRAC:(circle all that apply) AV NE NC NW SE SW CA	Date of Patient Death:		
Reporting Facility and Designation Level:	Transferring Facility and Designation Level:	Contact person:	Phone #:	Email:			
Transferring Facility made aware of Pt Death by receiving facility? Y/N	Date Transferring Facility Made Aware of Pt Death:				<i>*Transferring Facilities must also submit a death form after the receiving facility notifies them of patient death*</i>		
Case Summary: (Attach other pertinent information to this form for TRAC MD and TRAC QI Chair review)							

Hospital QI Findings with OFI's: (Attach meeting minutes or summary)

Hospital Trauma Medical Director Signature/ Date : _____

System Partners Involved: please note all hospital, EMS and ATCC personnel involved with case	Contact person:	Phone #:	Email:	Aware of Case (Y/N)

Date sent to TRAC QI Chair: _____ Date received by TRAC QI Chair: _____

TRAC QI Chair/ TRAC MD Summary:

TRAC Medical Director: _____
Date: _____

TRAC QI Chair: _____
Date: _____

Opportunity for Improvement:

<input type="checkbox"/> Referral to Regional QI for focused review Date referred:	<input type="checkbox"/> Trend	<input type="checkbox"/> Hospital FYI Letter
<input type="checkbox"/> No Action required Date comments sent back to facility:	<input type="checkbox"/> Refer to State QI	<input type="checkbox"/> Additional Information Required

TRAC QI Subcommittee summary of deliberation:

TRAC MD: _____ Date of TRAC QI Subcommittee meeting: _____

Quality Improvement Actions (s):	Date Completed:	Trend Evaluation: <input type="checkbox"/> Re-evaluate in 3 months <input type="checkbox"/> Re-evaluate in 6 months <input type="checkbox"/> Monitor until resolved <i>*TRAC QI Chair or TRAC QI Secretary should send the state trauma nurse coordinators all closed death cases*</i>
<input type="checkbox"/> None Required		
<input type="checkbox"/> Trend		
<input type="checkbox"/> Guideline or Protocol		
<input type="checkbox"/> Letter with Corrective Action Plan Required		
<input type="checkbox"/> Education-Specify:		
<input type="checkbox"/> Enhanced Resources, Facilities, Communication		
<input type="checkbox"/> FYI Letter		
<input type="checkbox"/> Referral for M&M Peer Review/Operational Committee Presentation		
<input type="checkbox"/> Referral to ATCC _____		
<input type="checkbox"/> Referral to TAC State QI Committee		
Re-Evaluation Dates:		
Loop Closure Date:		

Trauma band# _____

Received by ADH Section _____

State TMD Comments:

STMD: _____

Date: _____

Appendix H

AR Trauma Death Reporting Process Instructions:

- Step 1:** Facility TPM identifies and completes forms that meet Trauma Death Criteria.
- Step 2:** Facility TPM submits cases meeting Trauma Death criteria for hospital QI review.
- Step 3:** Facility TPM sends all Trauma Death forms to State Trauma Nurse Coordinator after hospital review.
- Step 4: State Nurse Coordinator send the death form to the TRAC QI Chair for review by the TRAC QI Chair and the TRAC TMD.
- Step 5:** TRAC QI Chair and TRAC MD review the Death Form.
- Step 6:** TRAC QI Chair and TRAC MD determine the need for regional review.
- Step 7:** If regional review is needed, the case goes to TRAC QI for review (If no regional review is needed skip to Step 8). Qsource may be requested for assistance.
- Step 8:** TRAC sends copy of completed death report to ADH TNC.