Processes!!! Plans, Preparation

- **Fire Drill**
Objectives

- Describes the process of the identified PI issue for review
- Select levels of review and criteria for each level
- Methods of integration through the Trauma PIPS plan
Ok now what??

- You have indentified an issue
KEEP CALM AND TELL HOUSTON WE HAVE A PROBLEM
What you need to manage this

- Use your tools, keep track and develop a process
  - Develop criteria for some issues to be automatically placed in levels
  - Develop forms to describe the issue and its needs
- Develop
  - Standardize reports
  - Accessible protocols
  - A referral system for others to assist in the review of issues related to their areas
Levels

- Define your review levels to resolve issues and provide loop closure
  - Primary/Level I
  - Secondary/Level II
  - Tertiary/Level III

- Loop closure can be done at any level
TOPIC PIPS Levels of Review

2014 Edition of Trauma Outcomes & Performance Improvement Course
Primary Review: with daily trauma rounds

ID of Issues
- Prehospital
- Resuscitation
- Inpatient
- Outpatient

Purpose: Issue identification/validation
- Concurrent review, case summary, daily clinical rounds, last 24 hr admissions
- PI issue identification
- Video review

Secondary review: weekly with TPM

Purpose: discuss pt. care, identify issues and determine what goes to PI committee

PI Committee: monthly
Purpose: discuss identified issues, plans, and actions
Adult Trauma Performance Improvement Map

Data Sources
- Reported issues
- Focused audits
- M&M
- Registry
- Yellow cards

Dept. of Surgery
Trauma M&M Monthly

Investigate issue
(* Peer Issue)

Acknowledged Issue

LEVEL 1 Review
Analyze and identify issues
Manage Level 3 process remediation
Refer issues for Level 2 review or any specialty/provider Peer review
Manage feedback and information for potential loop closure or tracking

Level 2 Review
Trauma Multidisciplinary
Process/Systems Review Conference
Discuss referred issues,
Suggest remediation

Problem or Solution Identified

LEVEL 3 Review
MIHS Admin. systems review "summary provided to Division of Trauma"

Action-able PI Issue
ALL Peer Issues
Referred to MIHS Quality Office

Responsibility for ‘Action/Intervention’ Assigned
Levels of Review

- Primary Review - finding the events
  - Event identification
  - Confirmation of the event
  - Immediate resolution and feedback
  - Events may be closed at this level and trended
  - Use of tracking system to prove event reviewed, action taken and loop closure
Example

- PI Issue identified: Lack of Activation
- Primary Review:
  - Review pt. EMR
  - Review MOI
  - Activation Criteria
  - ED MD involved
- Identified opportunity of improvement
- Emailed ED MD involved with PI audit filter and Activation Criteria
- Action taken, loop closed
- Trend Lack of Activation
Levels of Review

- Secondary Review -
  - Reviewed by TMD and/or TPM
  - Investigate the issue in more detail
  - Issue may be closed at this level
  - Use tracking system & tools to prove issue has been reviewed, action taken and loop closure
  - OR
  - Push to the next level of Review
Trauma Program 2nd Level PI Review

Patient Name: __________________________ MRNW: __________________________
Admit Date: __________________________ DC Date/Time: __________________________
Age/Gender: __________________________ MOI: __________________________

Trauma PI for 2nd Level Review:

☐ Death w/ MSOF, sepsis, ICU issues?, etc.  ☐ ISS >25  ☐ Pediatric < 15 years
☐ Transfers Out for Management of Acute Injury
☐ Adverse Events w/ complications - MSOF, sepsis, self-extubation, PE, resp. failure, re-
intubation, RAPID response called
☐ Hemorrhagic Shock that required MTP
☐ Trauma Patient Admitted to Non-surgical Services – Inappropriate Admission
☐ Unplanned Re-admissions

Epidural/Subdural Hematoma  ☐ GCS ≤ 8  ☐ GCS 9-15 with OR intervention
Thoracic/Cardiac Injuries
☐ Cardiac Injury  ☐ Thoracic Aorta Injury  ☐ Need for Thoracotomy
☐ Sever Pulmonary Contusions that require ventilation
☐ Multiple Rib Fractures (rib plating, flail, resp. failure, retained HTX)

Pelvic/Femur Fractures  ☐ Unstable pelvic/femur fractures w/ Hypotension
☐ Embolization
Spleen/Liver (≥03)  ☐ Completed Guideline/algorithm sheet  ☐ Spleenectomy  ☐ Embolization
Other  ☐ Great SAVES  ☐ Penetrating Abdominal Trauma  ☐ Vascular Injuries

Comments:_________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________

Chart Reviewed Date: ____________ By: __________________________

Referred to: TMD Date: ____________ TPM Date: ____________

TMD/TPM Comments:_________________________________________________________
__________________________________________________________________________
__________________________________________________________________________

☐ Close No issues

Refer to: ☐ Trauma Surgery Committee  ☐ Multidisciplinary Committee  ☐ Trauma Operations

TMD/TPM ___________________________________________ Date/Time: ____________
Example

- Audit filter for 2nd level review: Penetrating abdominal trauma
  - Chart reviewed with summary of care
  - PI review with TMD & TPD weekly
  - TMD reviews chart for any care related concerns
    - Pushed to Trauma M&M if concerns identified or interesting case
    - Closed as reviewed if no concerns
Levels of Review

- Tertiary Review:
  - Presented at a formal committee
  - Determined if system vs. provider related
  - Requires corrective recommendations/actions
  - Requires closed loop and documentation of actions and re-evaluation
Formal Committees

- Trauma Multidisciplinary Peer Review Committee
- Trauma Operational Committee
- Trauma M&M
- Interdisciplinary Quality Forum
- Departmental Heads
- Pre-hospital/transfer facility
Example

- PI audit filter: IV site infection
  - Discussed in 2nd Level Review
  - Pushed to Trauma M&M and Trauma Committee (system related issue)
  - Pushed to Quality
    - Trended the root cause analysis
    - Team pulled together for review of current protocol
    - Policy/protocol changed, hospital educated
  - Action taken, loop closed, trend issue
Education

- The office staying alive
FOLLOW UP!!!!

- Always trend and follow up
- Determine a time period to trend any changes
- Run a report or document review of trends
- Complete loop closure
Pushing cases forward

- Indicator fallout
  - Select based on clinical significance
- All indicators?
- All complications?
- All Deaths?
- System Issues?
- Sentinel Events?

- Policy/protocol non-compliance
- Special Populations
  - Pediatrics
  - Geriatrics
  - Pregnant
  - Burns
  - Spinal Cord Injuries
  - Morbidly Obese
Line of Authority for Trauma

PIPS Process 2014 Edition of Trauma Outcomes & Performance Improvement Course
Adult Trauma PEER Review Map

Data Sources
- Reported issues
- Focused audits
- M&M
- Registry
- Yellow cards

Investigate Issue
(+) issue identified = refer to MIHS Quality Office for review

Quality Officer refers to Trauma Medical Director (TMD)
- Reviewed, closed
- Reviewed, refer to Peer meeting
- Reviewed, refer to other services
- Reviewed, refer to hospital PEER system
  - NOTE: TMD cases given to a PEER to review

All PEER related issues maintained by Quality office

Peer issues may be put through hospital PEER review system with summary reported to Trauma program

See MIHS Professional Practice Evaluation Policy
Use Tools to Stay ORGANIZED
# Trauma Process Improvement Work Sheet

**Patient Name:**

**Admit Date:**

**Discharge Date:**

**Mechanism of Injury:**

## Issues

<table>
<thead>
<tr>
<th>Date</th>
<th>Audit Filter</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Accountability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Key**

- ST = Standard Met
- N* = Non Preventable
- PF = Potentially Preventable
- PD = Preventable Death
- UN = Unavoidable Complication
- FJ = Fatal Judgment
- ET = Error in Technical Procedure
- ED = Error in Diagnosis
- NR = Not Reviewed / Needed
- NL = Nursing Related
- DM = Delay in MD
- DL = Delay in Discharge
- DI = Delay in Interventions/Care
- DP = Delay in Presentation

## Action Taken / Follow Up

- No Action Needed
- Continue to Trend & Review Variations
- Professional Resolution with Involved Providers
- Letter to Physician Involved / Chief of Service
- System Resolution
- Change in Policy or Procedure
- Focus Audit
- Physician Reply (Letter)

Via:

- Individual Discussion
- Meeting Discussion with Minutes
- Written Letter
- Peer Review Form ??
- Education
- Policy / Procedure
- Other:

## Trauma Registry

<table>
<thead>
<tr>
<th>Determination:</th>
<th>System Related</th>
<th>Disease Related</th>
<th>Provider Related</th>
<th>Cannot Determine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preventability:</td>
<td>Nonpreventable</td>
<td>Potentially Preventable</td>
<td>Preventable</td>
<td>Cannot Determine</td>
</tr>
<tr>
<td>Care:</td>
<td>Care Appropriate</td>
<td>Care Controversial</td>
<td>Care Inappropriate</td>
<td></td>
</tr>
</tbody>
</table>

## Documentation Attached

<table>
<thead>
<tr>
<th>Summary</th>
<th>Level 1 Review</th>
<th>Level 2 Review</th>
<th>Level 3 Review</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Attributing MD #1</td>
<td>Attributing MD #2</td>
<td>Trauma Program Manager</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Trauma Medical Director</td>
</tr>
<tr>
<td>PI Indicator</td>
<td>Population</td>
<td>Aim</td>
<td>Reporting</td>
</tr>
<tr>
<td>-------------</td>
<td>------------</td>
<td>-----</td>
<td>-----------</td>
</tr>
<tr>
<td>01 Delay TSA response&gt;15*</td>
<td>Level 1 &amp; 2 Activations</td>
<td>0%</td>
<td>Quarterly</td>
</tr>
<tr>
<td>02 Under Triage*</td>
<td>All trauma patients</td>
<td>-10%</td>
<td>Monthly</td>
</tr>
<tr>
<td>03 Over Triage*</td>
<td>All trauma patients</td>
<td>-10%</td>
<td>Monthly</td>
</tr>
<tr>
<td>04 Change in activation level</td>
<td>All trauma patients</td>
<td>0%</td>
<td>Quarterly</td>
</tr>
<tr>
<td>05 Lack of video recording</td>
<td>Level 1 &amp; 2 Activations</td>
<td>0%</td>
<td>Quarterly</td>
</tr>
<tr>
<td>06 Failure to call backup within 3 minutes</td>
<td>Level 1 &amp; 2 Activations</td>
<td>0%</td>
<td>Annually</td>
</tr>
<tr>
<td>07 Inappropriate airway management</td>
<td>All trauma patients</td>
<td>0%</td>
<td>Quarterly</td>
</tr>
<tr>
<td>08 MSI w/o trauma admission*</td>
<td>All trauma patients</td>
<td>0%</td>
<td>Quarterly</td>
</tr>
<tr>
<td>09 Admit to non-surgical service**</td>
<td>All trauma patients</td>
<td>-10%</td>
<td>Monthly</td>
</tr>
<tr>
<td>10 Lack of ED evaluation DA*</td>
<td>All trauma patients</td>
<td>-10%</td>
<td>Monthly</td>
</tr>
<tr>
<td>11 Lack of FU letter within 1 wk of dc</td>
<td>Level 1 &amp; 2 Activations</td>
<td>0%</td>
<td>Quarterly</td>
</tr>
<tr>
<td>12 Delay in primary survey</td>
<td>Level 1 &amp; 2 Activations</td>
<td>0%</td>
<td>Monthly</td>
</tr>
<tr>
<td>13 Delay in IV access during resuscitation</td>
<td>Level 1 &amp; 2 Activations</td>
<td>0%</td>
<td>Monthly</td>
</tr>
<tr>
<td>14 Lack of event mgmt (pg2)</td>
<td>Level 1 &amp; 2 Activations</td>
<td>0%</td>
<td>Monthly</td>
</tr>
<tr>
<td>15 Lack of team member response</td>
<td>Level 1 &amp; 2 Activations</td>
<td>&lt;5%</td>
<td>Monthly</td>
</tr>
<tr>
<td>16 Inappropriate analgesia sedation management</td>
<td>All trauma patients</td>
<td>0%</td>
<td>Quarterly</td>
</tr>
<tr>
<td>17 Transfer floor to ICU*</td>
<td>All trauma patients</td>
<td>0%</td>
<td>Bi-annually</td>
</tr>
<tr>
<td>18 GCS&lt;8 w/o ICP monitor</td>
<td>All trauma patients</td>
<td>0%</td>
<td>Quarterly</td>
</tr>
<tr>
<td>19 Lack delay of consult</td>
<td>All trauma patients</td>
<td>&lt;5%</td>
<td>Quarterly</td>
</tr>
<tr>
<td>20 Delay in injury identification&gt;24 hours</td>
<td>All trauma patients</td>
<td>0%</td>
<td>Monthly</td>
</tr>
<tr>
<td>21 Lack HCG &gt;11 y/o</td>
<td>All trauma patients</td>
<td>0%</td>
<td>Quarterly</td>
</tr>
<tr>
<td>22 Inappropriate related CPG protocol compliance</td>
<td>All trauma patients</td>
<td>0%</td>
<td>Quarterly</td>
</tr>
<tr>
<td>23 Lack ABX for open fracture within 1 Hr ED arrival</td>
<td>All trauma patients</td>
<td>0%</td>
<td>Quarterly</td>
</tr>
<tr>
<td>24 Error in technique*</td>
<td>All trauma patients</td>
<td>0%</td>
<td>Monthly</td>
</tr>
<tr>
<td>25 Infected int procedure (pg7)</td>
<td>All trauma patients</td>
<td>0%</td>
<td>Quarterly</td>
</tr>
<tr>
<td>26 Skin breakdown</td>
<td>All trauma patients</td>
<td>0%</td>
<td>Quarterly</td>
</tr>
<tr>
<td>27 Pl. re-imaged</td>
<td>All trauma patients</td>
<td>0%</td>
<td>Monthly</td>
</tr>
<tr>
<td>28 Lack of EMS run sheet*</td>
<td>All trauma patients</td>
<td>-10%</td>
<td>Quarterly</td>
</tr>
<tr>
<td>29 Delay in disposition availability*</td>
<td>Level 1 &amp; 2 Activations</td>
<td>0%</td>
<td>Quarterly</td>
</tr>
<tr>
<td>30 Lack of int patient vs**</td>
<td>All trauma patients</td>
<td>-10%</td>
<td>As needed</td>
</tr>
<tr>
<td>31 Inappropriate neurological assessment*</td>
<td>All trauma patients</td>
<td>-10%</td>
<td>As needed</td>
</tr>
<tr>
<td>32 Other</td>
<td>All trauma patients</td>
<td>As needed</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Location</th>
<th>System/Device/Provider (whichever)</th>
<th>Description</th>
<th>NF/PND</th>
<th>Open/Closed</th>
<th>Action/Report (closed)</th>
<th>Date of action</th>
</tr>
</thead>
</table>

Complications: [ ] Yes [ ] No

Notes:

*ACG or data required
**Joint Commission: patient safety goal

Pursuant to A.R.S. 36-445.01
<table>
<thead>
<tr>
<th>Indicator</th>
<th>Source</th>
<th>Patient affected Y/N</th>
<th>Action performed in Secondary review</th>
<th>Requested response date</th>
<th>Details</th>
<th>Referred M/M, PI, Opt.</th>
<th>Closed Date</th>
<th>Signature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute renal failure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute respiratory distress syndrome (ARDS)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cardiac arrest with CPR</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deep vein thrombosis (DVT)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extremity compartment syndrome</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graft prosthetic failure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Myocardial infarction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organ space surgical site infection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pneumonia</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pulmonary embolism</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stroke/CVA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Septic surgical site infection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unplanned return to ICU</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urinary tract infection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other complications- not on this list</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No listed medical conditions occurred</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Complications entered in Trauma One □ Yes □ No

Pursuant to A.R.S. 36-445.01
Things to take away

- Many options to perform this process; use the one that works for you
- Tracking system and tools are your best friends
- Systematic approach to audit filters will help in process improvement
- Have standards/parameters/thresholds for review decision levels
- Be consistent to get results
References

- The Office: NBC
- TOPIC, Trauma Outcomes & Performance Improvement Course; 2014 Edition, Society Of Trauma Nurses (STN)
- Dr. Vail, Scottsdale Osborn Medical Center, shared some tools and process algorithms