Practice Management Guideline Monitoring 101

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Practice Guidelines
Description

• Practice guidelines complex and difficult to monitor

• Practical standardized approach needed to standardize the process and monitoring plan

• Based upon evidence-based recommendations, clinical judgment and our own practice patterns
Practice Guideline Monitoring

Why do it?

- Necessary element of PIPS process
  Do they work?

- Verification site visit expectations
  Do you follow them?

- Medical-legal implications
  If care rendered not congruent with the guideline, is the provider/health care team liable for untoward outcomes?

- Data driven/evidenced based practice
  Really? Or just our ‘bias’ and ‘how we do it’?
Practice Guideline Monitoring
Developing the Plan - Basic Tenets

- Keep process simple *and* meaningful
- Maximize use of trauma registry
  *Use or own data; representative of our own practice*
- Enhance awareness of guidelines
- Include trauma team in PIPS process
  *Enlist surgeons, nurses and advanced practitioners*
- Provide congruency with institutional quality scorecards
- Assess relevance, compliance and viability of guideline
  *Do we really need it and does it work? Do we use it?*
With each guideline determine

• What is the intent of the guideline?
• What is the measurable outcome?
• What 2-3 questions related to the guideline would address the intent?
• What information can be obtained from the registry?
• What is the volume of patients using this guideline?
• What is the risk to the patient if the guideline is not followed?
## Practice Guideline Monitoring
### Evaluating the Plan

<table>
<thead>
<tr>
<th>Risk</th>
<th>Volume</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>↑</td>
<td>↓</td>
<td>Risk: Concurrent &amp; aggregate review of all cases</td>
</tr>
<tr>
<td>↓</td>
<td>↓</td>
<td>Volume: Evaluate guideline</td>
</tr>
<tr>
<td>↑</td>
<td>↑</td>
<td>Risk: Concurrent as needed &amp; aggregate review of a sample of cases</td>
</tr>
<tr>
<td>↓</td>
<td>↑</td>
<td>Volume: Routine monitoring of a sample of cases</td>
</tr>
<tr>
<td>Monitoring Plan Template for all guidelines</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Congruent with Institutional Scorecard

<table>
<thead>
<tr>
<th>Guideline Title:</th>
<th>As Written</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guideline Purpose:</td>
<td>As written on guideline</td>
</tr>
<tr>
<td>Measure:</td>
<td>(process, outcome, safety, service, value) Process measure to assess adherence to and efficacy of the guideline</td>
</tr>
<tr>
<td>Definition:</td>
<td>Define how this will be measured.</td>
</tr>
<tr>
<td>Calculation Description:</td>
<td>(numerator, denominator, exclusion) Define how the outcome measures will be calculated</td>
</tr>
</tbody>
</table>
| Benchmark/Threshold: | 90% adherence to guideline  
*(This is the standard but may be modified as needed)* |
| Annual Plan: | How are cases found? Is there a primary and secondary review? Who will this be reported to? At what frequency will this be monitored and reported? |
| Long-Term Goal: | Consistently maintain within established threshold  
*(This is the standard)* |
| Metric Steward: | Trauma Performance Improvement Coordinator  
*(This is the standard)* |
| Source: | Trauma Registry, Morning Report and Care Review  
*(Choose the methods that fit best)* |
| Review Question(s): | List 2-4 key questions, that when asked grasp the intent of the guideline. These will be what the reviewers will look for when evaluating this PMG. |
| Analysis/Summary: | (this will remain blank until we have a report on the subject) |
Guideline Title: Diagnostic Peritoneal Lavage

Guideline Purpose:
To state the indications for diagnostic peritoneal lavage (DPL) in the trauma patient

Measure: (process, outcome, safety, service, value)
Process measure to assess adherence to and efficacy of the guideline

Definition:
Number of DPLs performed in the ED meeting established criteria
Number of patients receiving a laparotomy greater than 4 hours after arrival

Calculation Description:
Total number of pts receiving laparotomy > 4 hours after arrival that met criteria for DPL
Total number of patients receiving a laparotomy > 4 hours after arrival

Benchmark/Threshold:
90% adherence to guideline

Annual Plan:
Develop auto-filter for diagnosis – “diagnostic peritoneal lavage”
Review each case for adherence to guideline.
All cases will be reviewed in Trauma Mortality & Morbidity Conference
Review all patients receiving laparotomy > 4 hours after arrival for potentially missed opportunity for DPL.

Long-Term Goal:
Consistently maintain within established threshold

Metric Steward:
Trauma Performance Improvement Coordinator

Source:
Trauma Registry and Case Review

Review Question(s):
In the patient that received a DPL, did he/she meet the contraindication criteria?
In the patient that received a laparotomy greater than 4 hours after admission, did he/she meet the indication criteria for DPL?

Analysis/Summary:
After guideline monitoring plan developed
- Grouped guidelines with similar population
- Considered seasonal and patient volume variations

<table>
<thead>
<tr>
<th>Review Period</th>
<th>General Category</th>
<th>Guidelines Included</th>
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<tbody>
<tr>
<td>Jan/Feb</td>
<td>Blunt Chest Trauma</td>
<td>Chest tube discontinuation; Rib fracture management; Rib stabilization; CRACDD rib catheter</td>
</tr>
<tr>
<td>Mar/Apr</td>
<td>Spine &amp; Nutrition</td>
<td>Spine evaluation</td>
</tr>
<tr>
<td>May</td>
<td>Miscellaneous</td>
<td>Burn/Cold care; Stress ulcer prophylaxis</td>
</tr>
<tr>
<td>Jun/Jul/Aug</td>
<td>Emergency Procedures</td>
<td>Central line replacement; DPL; Emergency airway; Intubation indications; Withholding resuscitation</td>
</tr>
<tr>
<td>Sep/Oct</td>
<td>Skin &amp; Wound</td>
<td>Bed rest after trauma; Complex wound care; Edema management</td>
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<tr>
<td>Nov/Dec</td>
<td>Bleeding &amp; Spleen</td>
<td>Massive blood transfusion; Reverse anticoagulation; Spleen evaluation, management and vaccinations; Retained Hemothorax</td>
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</table>
Practice Guideline Monitoring
Executing the Plan

Obtain trauma registry report

- **Adults (≥ 15)**
- **1 year period Jun 08-May 09**
- **Any DPL & and laparotomy greater than 4 hours**

<table>
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<tr>
<th>AGE</th>
<th>GENDER</th>
<th>ADM DATE</th>
<th>ARR TIME</th>
<th>PROC</th>
<th>DESCRIP</th>
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<td>OR</td>
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<td>M</td>
<td>8/14/2008</td>
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<td>OR</td>
<td>2609</td>
<td>11/17/2008</td>
</tr>
</tbody>
</table>

* NO PATIENTS WITH A DPL PROCEDURE DONE IN E.D. DURING THIS TIMEFRAME
## Practice Guideline Monitoring

### Executing the Plan

**CONFIDENTIAL**

**SOURCE:** TRAUMABASE/TRAUMA REGISTRY

**TIMEFRAME:** HOSPITAL DEPARTURE DATE FROM JUNE 1, 2008 THROUGH MAY 31, 2009

**PTS WITH ICD9 PROCEDURE CODES FOR ABD SURGERY WHICH OCCURRED GREATER THAN 4 HOURS (240 MINUTES) AFTER HOSPITAL ARRIVAL TIME AND PTS THAT RECEIVED A DPL IN ED**

<table>
<thead>
<tr>
<th>Clinic#</th>
<th>Name</th>
<th>Age</th>
<th>Sex</th>
<th>Admit Date</th>
<th>Arrival Time</th>
<th>Proc Code</th>
<th>Description</th>
<th>OR</th>
<th>Proc Time (in minutes)</th>
<th>Proc Time (in hours)</th>
<th>Proc Time (in days)</th>
<th>Depart Date</th>
<th>Date</th>
<th>Did the patient meet criteria for DPL prior to laparotomy?</th>
<th>Was the treatment of the operative condition considered delayed?</th>
<th>Was the line placed in the ED or field changed in the first 24 hours of admission?</th>
<th>Comments/Notes</th>
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<td>M</td>
<td>10/18/2008</td>
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<td>OR</td>
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<td>5.72</td>
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<td>5453098</td>
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<tr>
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<td>23.35</td>
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<td>YES</td>
<td>NO</td>
<td>NO</td>
<td>No Applicable</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

**Diagnostic Peritoneal Lavage (DPL)**

There were no DPLs done in this review period. The patients were identified from a query of the registry for all patients between June 1, 2008 and May 31, 2009 with a laparotomy greater than 4 hours with the thought that this patient population may have required earlier intervention. This data set has been scrubbed of cases unrelated to the initial trauma (i.e., colostomy 79 days post injury) or duplications.

Two cases were identified in a query regarding central venous catheters placed in the emergency department. To prevent multiple reviews by different people of the same case, these two cases have been added under the DPL review.

Please review these cases using the criteria listed in the PMG. Please comment on any cases that fall out of the anticipated result. At the end of your review please describe any key points from the review as well as any recommendations for PMG revision.

Thank you for your time in completing this review.

If you have any questions, please contact Julia Senn-Reeves RN, CNS  B-3965 OR 127-01185

Assigned to: Mark Sawyer, MD  628/2009

DUE DATE: 9/11/2009
# Practice Guideline Monitoring

## Executing the Plan

**SOURCE:** TRAUMABASE/TRAUMA REGISTRY

**TIMEFRAME:** HOSPITAL DEPARTURE DATE FROM JUNE 1, 2008 THROUGH MAY 31, 2009

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<th>OR</th>
<th>Proc Time (in minutes)</th>
<th>Proc Time (in hours)</th>
<th>Proc Time (in days)</th>
<th>Depart Date</th>
<th>Did the patient meet criteria for DPL prior to laparotomy?</th>
<th>Was the treatment of the operative condition considered delayed?</th>
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<td>12</td>
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<td>Other repair of intestine</td>
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* NO DPL PROCEDURE DONE IN E.D. DURING THIS TIMEFRAME

The information contained within this document is for confidential quality and peer review processes only and is protected from third party disclosure by Minnesota Statute 145.61 et Seq. The statute provides that this information may be released internally only to the extent necessary to carry out quality/peer review within the organization. DO NOT FORWARD OR DISTRIBUTE without permission of the Trauma Center Medical Director or Trauma Center Performance Improvement Medical Director.
Indications for Use of Diagnostic Peritoneal Lavage (DPL)

- In the patient that received a laparotomy greater than 4 hours after admission, did he/she meet the indication criteria for DPL?
- 13 patients met criteria for review (no DPLs done)
  - 1 case met criteria for DPL but did not result in a delay or complication
- During the PMG review, the reviewer offered some revision suggestions. Recommended revisions currently going through approval process.
Practice Guideline Monitoring
Evaluating the Plan

Compliant?

YES

Efficacious?

YES

Routine Monitoring

NO

Evaluate Guideline & Revise As Needed

NO

Efficacious?

YES

Evaluate Guideline Intent & Revise As Needed

NO

Performance Improvement Plan Needed
Practice Guideline Monitoring
Communicating the Results

• All results presented to PI committee for review and action
  • Reapprove or alter guideline based on the findings of the review
Practice Guideline Monitoring
Ongoing Development

• Incorporate concurrent reviews into all cases reviews (M&M and PI Committee)

• Integration of concurrent reviews for subsequent aggregate review

• Include patient specific reviews in trauma registry

• The monitoring plan will be developed in conjunction with the implementation of any new guideline
Practice Guideline Monitoring
Time Commitment - Initial

- Initial Guideline Review
  - Depends on the guideline; usually less than 1 hr
  - 1 hr

- Development of the Plan
  - Approximately 3 hrs (3 one-hour meetings)
  - 3 hrs

- Set-up Trauma Registry Report
  - Approximately 1 hr after data elements identified
  - 1 hr
  - Subsequent reviews will require less time
  - 30m-3

- Chart Reviews
  - Each review is different
  - 2
  - ranging from 30 minutes to 3 hrs

- Data collation and analysis
  - Approximately 2 hrs

TOTAL Person-Hours

6 ½ to 10 hrs
Practice Guideline Monitoring
Time Commitment-Subsequent

- Subsequent reviews will take significantly less time
  - Trauma Registry Report
    - Approximately 15-30 minutes
  - Chart Reviews
    - Each review is different
    - ranging from 30 minutes to 3 hrs
  - Data collation and analysis
    - Approximately 1 hr

Total Person Hours = 2 to 5 hours
• Practice variances
  • Costly
  • Poor team cohesion
  • Patient safety & medical-legal concerns

• Data driven guideline compliance is critical in our efforts to provide optimal care for our trauma patients

• It can be done simply and meaningfully

• Birth of a new process that could extend beyond trauma to ACS, ICU care and beyond.
Contact Information

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