Can Patient Follow-Up after Orthopaedic Trauma Surgery be Improved?

Guillaume Dumont, MD, Jeffrey Padalecki, MD, Akas Siddiqui, MD, MPH, William Robertson, MD, Rahul Banerjee, MD

Texas Orthopaedic Association
Annual Meeting
May 21, 2011
Disclosure

• No financial interests/relationships with any commercial company
Background

- Studies have evaluated factors affecting patient follow up in other medical subspecialties.

- Patient follow up rates in orthopaedic surgery have not been well studied.

- It is believed by most that trauma patients likely have poorer follow up rates than elective surgical patients.
Background

- Patient follow up after surgery is important for multiple reasons:
  - Evaluation of outcomes
  - Management and oversight of rehabilitation process
  - Counseling of patients
  - Research / Data collection
  - Improvement of care for future patients based on experiences
Background

• Reasons for poor follow up in trauma patients may include:

  • Patient demographics
  
  • Financial reasons (co-pay, transportation)
  
  • Scheduling
Purpose

• To identify factors that influence the clinic attendance rate for orthopaedic trauma patients.

• To study the effect of a phone call reminder system on the rate of follow up on this patient population.
Methods

• Retrospective chart review

• Level 1 Trauma Center (Parkland Health and Hospital System)

• All scheduled post operative visits within 90 days for 2 year period (Oct 2008 - Oct 2010) identified.

• All patients underwent surgical treatment of traumatic orthopaedic injuries (eg. Fractures)
Methods

• Demographic data recorded for each patient
  • Age
  • Sex
  • Race
  • Distance from home to clinic (ZIP code)

• One of Three Outcomes recorded for each clinic visit
  • Completed
  • No show
  • Cancellation
Methods

• Study Period: Oct 2008 - Oct 2010

• In Oct 2009 - A telephone appointment reminder system was instituted.

• Thus:
  • 1 year of data prior to phone call reminder system
  • 1 year of data with phone call reminder system in place.
Results

- 3967 postoperative clinic visits were scheduled
  - 1467 prior to phone call reminder system
  - 2500 after phone call reminder system

- Overall Follow Up Rate: 87.6 %
## Results

<table>
<thead>
<tr>
<th></th>
<th>Completed</th>
<th>No Show</th>
<th>Cancelled</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>No Reminder Call</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>Reminder Call</strong></td>
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</tbody>
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\[ \text{p} = 0.023 \]
Results - Demographics

- Patients aged 30-50 years old are more likely to follow up than patients <30 years old and patients >50 years old (p=0.003).

<table>
<thead>
<tr>
<th>Age</th>
<th>Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>30-50 years</td>
<td>1455/1620 (89.8%)</td>
</tr>
<tr>
<td>&lt;30 years</td>
<td>1113/1294 (86.0%)</td>
</tr>
<tr>
<td>&gt;50 years</td>
<td>820/949 (86.4%)</td>
</tr>
</tbody>
</table>
Results - Demographics

• Male patients more likely to “No Show” than female patients (p=0.028).

<table>
<thead>
<tr>
<th>Gender</th>
<th>No Show</th>
</tr>
</thead>
<tbody>
<tr>
<td>MALE</td>
<td>229/2451 (9.3%)</td>
</tr>
<tr>
<td>FEMALE</td>
<td>98/1351 (7.2%)</td>
</tr>
</tbody>
</table>
Results - Demographics

• Trend:

  • Patient who completed their visits had higher average distance from home to clinic than those who did not complete the visit.

  *(Not statistically significant)*
Discussion

• Follow up rates at our center are relatively high in trauma patients in the first 90 days after surgery. (87.6%)

• Telephone reminder did not affect the rate attendance to postoperative clinic visits within 90 days.

• Cancellation Rate was increased after implementation of phone call reminder.
  • Implications for time/resource utilization - Avoiding empty clinic slots

• Certain demographic variables are associated patient follow up after orthopaedic trauma surgery.
Discussion

• Previously no published data on orthopaedic post operative follow up available

• More investigation needed to evaluate long term follow up rates, and ways to improve follow up

• Evaluation of follow up based on various diagnoses may be helpful

• Weaknesses of Study:
  • Retrospective Chart Review
  • No data available on whether phone call answered
Questions?