Pain Experience of Patients whose Primary Language is not English following Total Joint Arthroplasty, 2009

Holland Orthopaedic and Arthritic Centre/Sunnybrook Health Sciences Centre (HC/SHSC)
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Principal Investigator
Nov. 1, 2013
Holland Orthopaedic and Arthritic Centre/Sunnybrook Health Sciences Centre
“To Investigate the Pain Experience of Patients whose Primary Language is not English and are Discharged to Home/Int. Rehab on POD 5 or Earlier”

• Funded by SHSC/LCI Program
• Identify Mentor
• Submit Abstract and Budget
• Need written support from Mentor and Unit Manager
• Ethics Approval
Implications

• 90 hour Study ( + 60 additional hrs)
• Promotes nursing knowledge and expertise
• Improves client care outcomes
• Supports professional development
• Develop network of peer support and excellence
Support

• Mentor
  - Mona Sawhney, RN, MN, Nurse Practitioner
    Acute Pain Service, Holland Centre (HC)

• Statistical Data Analysis
  - Alex Kiss, PhD, Institute for Clinical Evaluative
    Studies, Department of Research, Sunnybrook
    Health Science Centre

• IT Support
  - Steven and Robert Ramlall
Support Group
Background: RPNAO 2007 Leadership Clinical Practice Fellowship (LCPF)

- RPNAO with funding from the Ministry of Health and Long Term Care developed LCPF
- SHSC also sponsored the 400 hr fellowship
- Title: Post discharge pain management following elective primary total hip/total knee arthroplasty on patients discharged to home on pod 5 or earlier from an acute care facility Y. Ramlall, D. Archibald, S. Robinson, M. Sawhney, S. Ramlall
- Adult In-patient Orthopaedic Surgery, HC
Background on Pain

• “Over the past decade, enormous progress has been made in the field of pain. Unfortunately, this has had little effect on improving the care of patients with pain. As health care professionals, we must view this as an unforgivable failure.”

  Pain, Clinical Manual, Ch. 4, McCaffery, 1999

• At the HC, our goal is to continue to improve the patient`s post-op pain experience
Background cont’d

• Following Total Joint Replacement at the HC, patients were monitored by Acute Pain Service, from morning of POD 0 to morning of POD 5

• On POD 3, discharge plans are reassessed by the interdisciplinary teams PT, OT, SW, Med., CN

• For patients dc’d to Int. Rehab, APS would assess regarding pain, if needed

• Study done in 2009

• Goal since 2011, its Home 4, MIS are in 3 days
2009 Research Question

• Are we meeting the patient’s expectations following Elective TJR for whom, **English is not their primary language** and are they satisfied with the level of pain experienced during the first 5 days upon discharge from acute care?
Objective

• The objective of this study was to review how communication barriers impact the understanding of and reporting of pain levels and management options, rather than whether non-English speaking patients actually experience different pain levels.
Literature Review – Ovid Medline, Cinahl and Embase for 2009 Study

• Key search text:
• Post discharge with TJR POD5 or earlier
• Terms used: Total Joint Arthroplasty,
  - Non English speaking pts. post THA/TKA
  - Post-operative pain,
  - Language other than English,
  - Cultural diversity
• Search limited from (2001 to March 2011)
Purpose

• To determine pain scores of subject patients
• To assess patients satisfaction with ability to communicate their pain control needs
• To assess # of pain tablets taken
• To assess nausea, vomiting and constipation upon discharge to home
• To assess pain scores and amt. of pain meds. controlling for age and gender
Outcome Measures / Goals

• To provide graphic illustration of pt’s pain levels during the first 5 days post discharge from acute care

• To assess post discharge nausea, vomiting and constipation

• To determine if the pt’s are satisfied with pain control and for them to say, how to improve pain control
Obtaining Consent

• Prepared script on how to approach patients
• Met with patient/substitute decision maker on POD3, to explain the Study/ PSAF
• Obtained Informed Consent prior to discharge
• Study subjects identified with a # to maintain confidentiality
Inclusion Criteria

• Study subjects > 18 years old
• Scheduled for Unilateral Primary THA/TKA
• Primary Language **other than English**
• Scheduled to go home on POD 5 or earlier
• If on POD3, the discharge plan was revised for Internal Rehab on POD 5, the study subjects remained in the study
Exclusion Criteria

- Primary Language being English
- History of chronic pain
- Cognitive impairment
- TKA/THA Revision
- Bi-lateral TKA/THA
Procedure

• Reviewed Interdisciplinary Assessment Chart to recruit patients who met the criteria
• Approached patients on POD3
• Met with patient/SDM/translator to obtain Consent and explain the procedure (copy of Consent kept on record at HC)
• Study Instruction Sheet, PSAF & a stamped addressed envelope was given to study subjects for mail back of the completed PSAF
Procedure cont’d

• Copy of RX kept on record
• Study subject/SDM had to document # of RX pain tablets taken daily to POD 9
• To document pain scores captured at 3 points during the day (0800, 1400 and 2000)
• To document satisfaction with pain control daily and to write comments, if necessary
• To note if any experience of nausea, vomiting or constipation daily, to POD9
• Follow-up phone calls made on POD7 & POD9
# PAIN SELF ASSESSMENT FORM

<table>
<thead>
<tr>
<th>ANALGESIC PRESCRIBED</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Percocet:</td>
<td></td>
</tr>
<tr>
<td>Tylenol#3:</td>
<td></td>
</tr>
<tr>
<td>Other:</td>
<td></td>
</tr>
</tbody>
</table>

## DATE:

## GENDER:

## AGE:

## PROCEDURE:

<table>
<thead>
<tr>
<th>TIME</th>
<th># OF TABLETS</th>
<th>PAIN LEVEL</th>
<th># OF TABLETS</th>
<th>PAIN LEVEL</th>
<th># OF TABLETS</th>
<th>PAIN LEVEL</th>
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</table>

## TOTAL TABLETS TAKEN DAILY

## DAILY AVERAGE PAIN LEVEL

<table>
<thead>
<tr>
<th>NAUSEA</th>
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</table>

<table>
<thead>
<tr>
<th>VOMITING</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>CONSTIPATION</th>
</tr>
</thead>
</table>

Is pain level Satisfactory? Yes No

Comments:

CREATED BY: YVONNE RAMLALL 2009
Internal Rehab

• Some study subjects completed the PSAF independently, others required assistance

• Charts were reviewed for incomplete data (eg. amount of pain meds given and N,V or C data)

• Met with study subjects to review PSAF and to answer their questions
Follow-up Activities

• Made phone calls to study subjects on POD7 and POD 9

• 1 patient had Doppler US done on POD5 due to increased pain and swelling (Neg. DVT) & repeated on POD14 (Neg. DVT)

• Called patient on POD9 and made a follow-up call on POD20, continued to complain of swelling and pain. Was monitored by surgeon
Sample / Response Rate

• 22/143 patients met the criteria
• 20 patients consented/ 2 declined
• 13 patients went to Internal Rehab
• 5/6 study subjects who went home returned the PSAF (83.3%)
• (1 patient went to ext. Rehab & 1 did not initiate the PSAF from home)
• Total response rate= 94.7%
2007 Sample / Response

- Consent  Dc to Home  Response
  113 pts  98 pts  85/98 = 87.7%

- THR  TKR
  Male  25%  28%
  Female  17%  30%
## 2007 Analysis

<table>
<thead>
<tr>
<th></th>
<th>Ltk</th>
<th>Lth</th>
<th>Rth</th>
<th>Rtk</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mean Pain</strong></td>
<td>3.5</td>
<td>3.6</td>
<td>3.7</td>
<td>4.4</td>
</tr>
<tr>
<td><strong># of Pain tab</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percocet</td>
<td>5.1</td>
<td>4.5</td>
<td>6.8</td>
<td>7.8</td>
</tr>
<tr>
<td>T #3</td>
<td>5.1</td>
<td>3.8</td>
<td>4.6</td>
<td>4.1</td>
</tr>
<tr>
<td><strong>Satisfaction</strong></td>
<td>2.7 <code>&lt;</code></td>
<td>3.2 <code>&lt;</code></td>
<td>3.3 <code>&lt;</code></td>
<td>3.9 <code>&lt;</code></td>
</tr>
<tr>
<td><strong>Not Satisf.</strong></td>
<td>5.4 <code>&gt;</code></td>
<td>5.0 <code>&gt;</code></td>
<td>4.9 <code>&gt;</code></td>
<td>6.1 <code>&gt;</code></td>
</tr>
<tr>
<td><strong>69.1% of pts. Satisfied with pain level during the first 5 days upon dc to home</strong></td>
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</tr>
</tbody>
</table>
2007 Study results

- Lth patients took < pain meds than rth pts. (p=0.02)

- Lth patients took < pain meds than rtk pts. (p=0.0001)

- Ltk patients took < pain meds than rtk pts. (p=0.0002)

- Rth patients required less pain meds than rtk pts (p=0.04)
2007 Study results cont’d

• Patients with Lth had lower pain scores than Rtk (p=0.02)

• Patients with Ltk had lower pain scores than Rtk (p=0.009)

• Patients with Rth had lower pain scores than Rtk patients that were marginally significant (p=0.07)
## 2009 Participants Demographic

<table>
<thead>
<tr>
<th>Variable</th>
<th>Male (n=6)</th>
<th>Female (n=12)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Age</td>
<td>68</td>
<td>69</td>
</tr>
<tr>
<td>Surgical Procedure</td>
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</tr>
<tr>
<td>LTHA</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>LTKA</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>RTHA</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>RTKA</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

1(F) participant (LTKR) did not complete the PSAF
## Place of Discharge of Respondents

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Int. Rehab</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>Ext. Rehab</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>
8 Languages spoken/19 Pts.

- Greek .................................. 7
- Italian.................................. 5
- Spanish................................. 2
- French.................................. 1
- Portuguese............................. 1
- Urdu................................. 1
- Croatian............................... 1
- Persian................................. 1
Analgesic Prescribed

• DC to Home RX:
  • Percocet 1 - 2 tab. po Q4-6 hr prn
  • Tylenol #3 1 - 2 tab. po Q4-6 hr prn

• Int. Rehab RX:
  • Oxycodone 5 - 15 mg po Q2h prn
  • Paracetamol (TES) 1 - 2 tab po Q 6h prn
  • Hydromorphone 2 mg po Q2h prn
Documentation of Pain Rating

• At Home

Analgesics taken  73 times

Pain rated  66 times  90%
(1) Please describe your satisfaction with pain control

- Very happy / satisfied 56%
- Not happy 44%
(2) Are you satisfied with your ability to communicate your pain control needs?

• No............................................................................................................. 44%

• Needs interpreter................................................................. 39%

• Feels unsure when to ask for pills.............. 28%
(3) Please tell me how to improve pain control

- Needs translator/unable to explain.....39%
- Does not have an answer.................. 17%
- Taking Gravol prior to pain pills........... 11%
- Teaching enabled proper use............... 11%
- Not aware to ask for pills................... 11%
- To give stronger pain pills .................. 6%
- More frequent visit from nurses............ 6%
Average % of N,V & C over 5 days (POD 5 – POD 9)

- Nausea/vomiting.................. 50%
- Dizzy/ Sweating.................. 28%
- Constipation...................... 22%
Regression Analysis: Outcome average scores over time controlling for age and gender

• Age .................. (p=0.7009)

• Gender ............. (p=0.0346) with females having a higher average than males

• Mean Score by Gender:
  Female 4.25
  Male 3.26

• Time was significant (p<0.0001) showed a decreasing trend over time
Overall participation in this study

- Participants reported higher pain intensity (5.1/10) as compared to English speaking pts. (4.4/10) the first study.
- Most common adverse effect in this study was nausea, in the earlier study it was constipation.
- Language barrier between participants/health care provider was a problem in communicating the pain management plan to participants.
- Most common recommendation was to utilize a translator to explain how to manage pain and the analgesics.
Limitation of 2009 study

• Initiative was allocated 90 hrs (Jan to Mar 09)
• Requested extra time and got 60 hrs
• 1 day/wk was a challenge to recruit patients
• Limited time to meet with Mentor to review data
• Data submitted to Biostatistician on personal time
• Project had to be completed by March 31, 2009
Organizational Support

• COO................................. Anne Marie Macleod
• Mentors............................Mona Sawhney, RN,NP
  Dr. Colin McCartney(APS)
• Nursing Director........Frances Flint
• Nursing Managers.......Katie Maloney
  Zawlina Kassam
  Shelly Ogrady
  (Mentor Support)......... Dorothy Archibald
• All disciplines who assisted with translation
Yvonne Ramlall, Gardener / Floral Designer

Butternut Squash

Table Arrangement
Best Practices make Best Changes
Improvement begins at the bedside

ANY QUESTIONS?

THANK YOU