PROMs to support informed patient decision making

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Disclosures

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PROMs → Expectations → Health care sustainability?
Expectations

• Patient perceived quality of life is the gap between expectations and experience

• Unmet expectations are likely to result in dissatisfaction

Expectations in TKA

• >60,000 TKA each year in Canada
• 1 in 5 dissatisfied post surgery ~ 12,000 TKA per year
• Predictors of dissatisfaction post surgery (ORs):
  - Age: 1.03
  - Baseline extreme pain: 2.36
  - Baseline WOMAC function: 1.01
  - Complication: 1.86
  - Low 1 year WOMAC pain: 2.45
  - Low 1 year WOMAC stiffness: -0.64
  - Low 1 year WOMAC function: 2.46
  - Expectations not met: 10.66

Unrealistic expectations in TKA

• Of patients who had TKA:
  – 33% overestimated the average proportion of patients that would have less pain post surgery
  – 43% underestimated the average rate of serious complications

• “the patient’s expectations for joint replacement surgery are achievable” is 1 of 6 measures of “appropriateness” for TKA surgery


“Terrible!!!! Bed bugs infestation!!!”

Reviewed 28 April 2012

MaximusJulius

Stayed in room 104, so did half a million bed bugs. Severely bitten by bed bugs and am itching like mad. Now I am all polka dotted.

Please avoid this place. I certainly will from now on.

Stayed April 2012

Helpful? 13 Helpful votes
• Feedback PROMs results to patients
• Example from the UK:
  >150,000 EQ-5D and Oxford Knee score responses over 5 years

### Pain and discomfort

- Severe pain: 8%
- Moderate pain: 24%
- No pain: 68%
• Of the 654 males, aged 60-65, with moderate baseline pain/limitations like you, who had TKA in the past year:

**Usual activities**

- Severe limitations: 11%
- Moderate limitations: 38%
- No limitations: 51%

**Pain and discomfort**

- Severe pain: 8%
- Moderate pain: 24%
- No pain: 68%
“After surgery, I’m looking for the problems that personally I’m going to face when I get surgery. How do you, you know, work in your house like you did before, get to bath or make your bed, do laundry, grocery shopping, and all those things.”

“This is useful. This is going to tell me, as accurately as possible, a little bit more personalized information. [The conventional information] doesn’t tell me anything except [it] scares the crap out of me. But this, this is going to say from 654 [people like me], I could actually expect to improve. Now that sounded pretty good.”

PROMs → Expectations → Health care sustainability
Expectations               Health care sustainability

• Expectations that change behaviour (hotel example):
  1. Preparation
     Crystal Hotel Telupid
• Expectations that change behaviour (hotel example):

1. **Preparation**
   - Crystal Hotel Telupid

2. **Change decision**
Expectations 

Health care sustainability

- E
- 1.
- 2.

A Randomized, Controlled Trial of Total Knee Replacement

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ABSTRACT

BACKGROUND

In this randomized, controlled trial, we enrolled 100 patients with moderate-to-
severe knee osteoarthritis who were eligible for unilateral total knee replacement. Patients
were randomly assigned to undergo total knee replacement followed by 12 weeks of nonsurgical treatment (total-knee-replacement group) or to receive only the 12 weeks of nonsurgical treatment (nonsurgical-treatment group), which was delivered by physiotherapists and dietitians and consisted of exercise, education, dietary advice, use of insoles, and pain medication. The primary outcome was the change from baseline to 12 months in the mean score on four Knee Injury and

Arterburn, David, et al. “Introducing decision aids at Group Health was linked to sharply lower hip and knee surgery rates and costs.” Health Affairs 31.9 (2012): 2094-2104
• Response bias
• PROM selection
• PROMs for alternative options
• Other issues with confounding
• Context matters
- Response bias

• Who completes pre and post PROMs?
• Tripadvisor has problems with people only providing good or bad reviews
• Could PROM feedback increase response rates?
- PROM selection

• Oxford knee score more sensitive than EQ-5D
• But 12 questions to feedback
• And narrow focus
- PROMs for alternative options

- Individuals who choose non-surgical management are currently not followed up with a PROM

- For informed decision making, we require PROMs for all options to help set expectations
- Context matters

• Evidence suggests patients less likely to choose surgery when informed of outcomes

• But in some contexts, could lead to increased demand – treatments, screening etc
Summary

• PROMs could have a role informing patients expectations
• The key question is whether they will change behavior
• Would require designing PROM collection with a broader perspective than present
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