When are the patients satisfied with their outcome?

Correlation of Patient Reported Outcome Measurement Information System (PROMIS) values with Patient Acceptable Symptom State (PASS) scores in Foot and Ankle Patients

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Disclosure

There are no potential conflicts to disclose with this presentation

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Our disclosures are listed in their entirety in the final AOFAS mobile app.
Introduction

Value based Orthopaedics

• Physicians need to demonstrate that their treatments improve care
  • Patient reported outcomes are used to evaluate results of various treatments
  • Legacy outcomes (FAAM, AOFAS, FFI)
  • PROMIS (Patient Reported Outcomes Measurement Information System)
    • Efficient, validated and used in foot/ankle orthopaedics (Hunt et al. 2013)
    • PROMIS MCID (Minimal Clinical Important Difference) have been defined
      • Ho et al. 2015

• Challenge: What do PROMIS scores mean regarding patient satisfaction?
Patient Acceptable Symptom State (PASS)

**Definition:** The highest level of symptom beyond which the patients consider themselves well.

Validated: Standard question that has been validated

**Purpose:**

Assess what PROMIS t-scores denote patient satisfaction with the current state of their foot & ankle (PASS)
Methods

• Ipads collected PROMIS (Physical Function, Pain Interference and Depression) t-scores and PASS data on all patients seen in large academic F/A clinic

<table>
<thead>
<tr>
<th>Instrument:</th>
<th>Completed at:</th>
<th>Normal Score:</th>
</tr>
</thead>
<tbody>
<tr>
<td>PASS</td>
<td>8:26:13 AM</td>
<td>NA</td>
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- Questions & Answers

Taking into account all of the activities that you do during your daily life, your level of pain, and also your function, do you consider that the current state of your foot and ankle is satisfactory?

• Statistics:
  • Logistic Regression PROMIS (PF, PI, D), age, gender, visit type and PASS Yes and PASS No
  • Identification of PROMIS t-score thresholds that predict PASS Yes and PASS No
    • Receiver operating characteristic curves (ROC) analyses determined 95% probability that a PROMIS score will result in PASS yes or PASS no
Patient Characteristics

- 495 patient visits
- 465 Unique patients
  - Mean age: 52.3 years
- 347 established patients
- 117 new patients
- 299 female
- 165 male
Results

New vs. Established patients

- New Patients: 100 New, 17 PASS NO, 17 PASS YES
- Established Patients: 246 New, 101 PASS NO, 101 PASS YES
Results

PASS Yes vs. Pass No

Function

P<0.05

Pain

P<0.05

Depression

NS

50 = population mean

PASS YES PASS NO

40.41 37.44

58.09 62.01

52.17 53.08

50 = population mean

PASS YES PASS NO

P<0.05

NS
Results

PROMIS scores for PASS Yes vs No with 95% thresholds

PASS YES = PROMIS t-score 50 for PF and PI

PASS YES = population mean 50
Discussion

Patients need to be at PROMIS 50 across domains to be **PASS YES**

- Represents the US norm population (T-score)
- Patients have reasonable expectations for their foot and ankle

**How is this Helpful? Useful in expectation management**

- A patient may reach MCID (i.e. statistical improvement) but not PASS yes (i.e. may not be fully satisfied with their foot and ankle following surgery)
- If we can identify these patients preoperatively we can counsel them that they may be improved but not “normal”
Discussion

Future works

• Determine PASS scores in a homogenous cohort of patients
• Determine if PASS scores correlate with satisfaction
• Expand PASS to other areas of orthopedics to assess if 50 is a generalizable threshold
• Assess if PASS thresholds change throughout recovery as expectations shift

Limitations

• Heterogeneous group
  • Surgical, non-surgical
  • Wide variety of diagnosis
• Didn’t look at different areas within orthopedics

Variations that we did not control for:

• Different surgeons
• Different techniques
References

1) Nroman GR, Sloan JA, Wyrwich KW. Interpretation of changes in health-related quality of life: the remarkable universality of half a standard deviation. Med Care; 2003, 41(5): 582-592


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8. Tashjian RZ, Deloach J, Porucznik CA, Powell AP. Minimal clinically important differences (MCID) and patient acceptable symptomatic state (PASS) for visual analog scales (VAS) measuring pain in patients treated for rotator cuff disease. JSES 2009:18(6): 927-932.