Outcomes Collection in Clinical Rehabilitation

Andy Kittelson, PT, PhD
Postdoctoral Fellow
Rehabilitation Science
University of Colorado Anschutz Medical Campus
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Postdoctoral Fellow
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Disclosures:
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Research

Clinical Practice

ACCORDS – Adult and Child Consortium for Health Outcomes Research and Delivery Science

University of Colorado Denver | Children’s Hospital Colorado
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• **Step 1: Make it easy**
  – Feasible
  – NOT time consuming
  – Outcomes collection is not data management

• **Step 2: Make it useful**
  – Outcomes are relevant to clinical decisions
  – Research products integrated with practice
Step 1: Make it easy

• Battery of clinical outcomes < 5 min
• Paper-based system, matched to clinical process/flow
TKA Rehab—Outcomes form

Patient Name: ___________________________ Date: ___________________________

Surgeon: ___________________________ Involved Knee: R L Date of Surgery: ___________

Visit: Pre-OP PT Eval Re-eval GRAD 6 MOS 1 Year Total visits __________

Patient Specific Functional Scale (NOTE: must be the same activities each visit): 0= can’t do; 10=able to do as if before knee problem

Activity 1________________________ Score (0-10)________________________
Activity 2________________________ Score (0-10)________________________
Activity 3________________________ Score (0-10)________________________

TUG:  Trial 1 __________ s  Trial 2 __________ s

4 m walk test: Trial 1 __________ s  Trial 2 __________ s

30 sec sit-to-stand  # of full stands in 30 seconds (hands across chest): __________

Quad strength:  Trial 1 ___________________________ Trial 2 ___________________________

Uninvolved ________ lbs  Uninvolved ________ lbs
Involved ________ lbs  Involved ________ lbs

Knee Active ROM: Flex ________° Ext ________° +hyper -lag
Step 1: Make it easy

• Keep it feasible
Step 1: Make it easy

- Data entry/quality checking is not the job of the clinician
A note on the use of outcomes data
Step 2: Make it useful

• Outcomes are responsive and meaningful
Step 2: Make it useful

• Outcomes are responsive and meaningful
  – Capture the range of relevant outcomes (pain, mobility, strength, participation)

Example… Timed Up and Go test vs. SLS
Step 2: Make it useful

• Research products are (we hope) integrated with clinical practice
Step 2: Make it useful

• Historically, outcome measures are used to...**document** patient outcomes

• We envision a shift—to use outcomes to **monitor** progress at the level of the individual patient
Example: Timed Up and Go
Timed Up and Go test for 240 patients following surgery
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Timed Up and Go test for 240 patients following surgery.
For example...

60 year old male
BMI = 28 kg/m²
Preop TUG time = 6.7 s
For example...

60 year old male
BMI = 28 kg/m²
Preop TUG time = 6.7 s
For example…

60 year old male
BMI = 28 kg/m²
Preop TUG time = 6.7 s
On the other hand...

75 year old male
BMI = 36 kg/m²
Preop TUG time = 31.5 s
On the other hand...

75 year old male
BMI = 36 kg/m²
Preop TUG time = 31.5 s
On the other hand…

75 year old male
BMI = 36 kg/m²
Preop TUG time = 31.5 s
Step 2: Make it useful

Outcomes collection → Monitoring progress

Helps with goal-setting

Documentation

What is the best course of action for this patient, in these circumstances?
Prof. Stef van Buuren
Biostats Seminar
November 2, 2016
Questions?
Timed Up and Go test for 240 patients following surgery

Centile curves using BCPE
For example, a 60-year-old male with a BMI of 28 kg/m² had a preoperative TUG time of 6.7 seconds.
For example…

60 year old male

BMI = 28 kg/m²

Preop TUG time = 6.7 s