Quality of Life after Trauma

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Quality of Life

- That attribute of human existence that is judged in terms of each person’s own values and that reflects current functional status and achievement.

- Nothing to do with a surgical value judgement or a surgeon’s value judgment.
Important Domains in HRQOL

- Physical symptoms
- Psychological symptoms
- Cognition
- Social relationships
- General health/health change
- Economic demands
- Hopes and expectations
- Spirituality
Challenges with QOL assessment

- Which instrument?
- When to measure?
- What is “normal”?
- What is modifiable?
- Overall or specific target areas?
- Requires follow-up
Which instrument?

- **General**
  - Populations
  - Less responsive to change
  - Better psychometric properties
  - Better comparisons

- **Disease-specific**
  - Individuals
  - More responsive to change
SF-36

Domains

Physical Function (PF)
Role Physical (RP)
Bodily Pain (BP)
General Health (GH)

Summary Measures

Physical Component (PCS)

Mental Component (MCS)

Domains

Mental Health (MH)
Role Emotional (RE)
Social Function (SF)
Vitality (VT)

Scoring proprietary
Quality of life after trauma
SF-36 Scores

1 month
6 months
24 month
Norms
Quality of Life

Long-term trauma survivors after prolonged ICU stay.
Measurement of correlates

- **PTSD**
  - PCLC—17 item self-administered questionnaire
    - Dichotomous cut-off (44)

- **Depression/Anxiety**
  - HADS—Hospital Anxiety and Depression Scale
    - 14 items (7 each)
    - Mild/moderate/severe

- **Pain**
  - Capturing what is already recorded
What is modifiable?

- QOL related to
  - ISS
  - Lower extremity injury
  - PTSD
  - Depression
  - Functional status
  - Social support
  - Gender
  - Age
  - LOS
QOL and modifiable factors

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>SE(B)</th>
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<th>Adj R²</th>
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<tbody>
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<td>-0.38*</td>
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</table>

*p < .01
Perceived injury severity

- ISS
- Pt. Score (D/C) n=100
- Pt. Score (3mo) n=54

Categories: Minor, Moderate, Severe, V. Severe
# Perceived injury severity

<table>
<thead>
<tr>
<th>Category</th>
<th>Before discharge</th>
<th>3 months</th>
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<tr>
<td>Underestimated severity, n (%)</td>
<td>14 (14)</td>
<td>19 (35)</td>
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<tr>
<td>Equivalent severity, n (%)</td>
<td>25 (25)</td>
<td>13 (24)</td>
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<tr>
<td>Overestimated severity, n (%)</td>
<td><strong>61 (61)</strong></td>
<td><strong>22 (41)</strong></td>
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<tr>
<td>Spearman correlation, statistic (p value)</td>
<td>0.13 (0.2)</td>
<td>0.15 (0.3)</td>
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<td>Kappa, statistic (p value)</td>
<td>-0.0081 (0.6)</td>
<td>0.069 (0.14)</td>
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</table>
Non-significant

- Age
- Race
- SES
- ISS
- Complications
- Discharge destination
- Employment status
Implications

- Biopsychosocial model of disease
  - “Disease can not be accounted for solely by deviations from norm of measurable biological variables”

- ISS an inaccurate reflection of how patient perceives injury

- Those most at risk for poor outcome least able to get help

- Hypothesis-driven research should focus on patient-assessed factors as they influence QoL.

Engel GL. Science 1977;196:129-136
Recommendations--Clinical

- Understand it’s a multidimensional construct
- Believe in the importance of patient-derived data
- Concentrate on one modifiable area
  - PTSD
  - Pain
  - Depression
- Do as much as you can on a shoestring... build infrastructure for the future
Summary

- QoL after injury improves over time, never returns to baseline
- Long-term follow-up essential
- As clinicians, modifiable factors important
- Psychological factors EXTREMELY important
  - Early recognition and screening
- Complex, interdisciplinary care and research
- Your perception ≠ your patient’s perception