

## Qualeffo-41 Scoring Algorithm (31.10.05)

1. All answers are standardized so that 1 represents the best and 5 (or 3, or 4) represents the worst quality of life (reverse scores on questions 33, 34, 35, 37, 39, 40).
2. Answers of questions with 3 answer options (23-26):
  - disregard "not applicable" (question 24) and "no cinema ....." (question 26)
  - score 1 → 1, 2 → 3, 3 → 5.
3. Answers of questions with 4 answer options (27-28-29):
  - disregard "not applicable" (question 29)
  - score 1 → 1, 2 → 2.3, 3 → 3.6, 4 → 5.
4. Domain scores are calculated by averaging the answers of one domain and transforming the scores to a score from 0 to 100, e.g. pain questions 1-5; the average score ranges from 1 to 5 and this is transformed to scores from 0 to 100. Missing values should be disregarded. Of course, when 30% or more of the questions are not answered, the calculation of domain scores and total score becomes questionable.

Examples: Pain

Q1: 3, Q2: 3, Q3: 4, Q4: 1, Q5: 3. Average score  $14/5 = 2.8$ .

Transformation to domain score

$$\frac{(\text{average score} - \text{lowest possible score}) \times 100}{\text{score range}} = \frac{(2.8 - 1) \times 100}{5-1} = 45$$

Q1: 3, Q2: 3, Q3: 4, Q4: 1, Q5: missing. Domain score  $11/4 = 2.75$ .

$$\frac{(2.75 - 1) \times 100}{5-1} = 43.75 \text{ (} \rightarrow 44 \text{)}$$

5. The total score is calculated by summing all answers of questions 1-41. The raw total score ranges from 41 to 205 (or less when some answers are missing) and this is transformed to scores from 0 to 100.

$$\frac{(\text{actual score} - \text{lowest possible score}) \times 100}{\text{score range}} = \text{total Qualeffo score}$$

Examples:

In case of no missing answers:  $\frac{(\text{actual score} - 41) \times 100}{164}$

164

In case of 5 missing answers:  $\frac{(\text{actual score} - 36) \times 100}{144}$

144