**Supplemental Digital Content 2. Patient related outcome measures (PROMs)**

***Pain***

*Visual Analogue Scale (VAS)*

The VAS pain score provides a simple and reliable self-reported pain measure and has been widely used to objectify pain intensity (1). A score of 0 indicates ‘’no pain’’ and a score of 10 indicates ‘’the heaviest pain ever experienced’’.

*Numeric Rating Scale (NRS)*

The NRS is similar to the VAS, with scores ranging from 0-10. A score of 0 reflects no pain and a score of 10 indicates worst possible pain (2).

*Aberdeen Weightbearing Test - Knee (AWK-T)*

The AWK-T is developed by McDonald et al. (3) and is a specific test for anterior knee pain which is assessed by weight bearing. The patient kneels on a scale during 60 seconds with full weight bearing on each knee. The ratio of total body weight on each knee at different time points (every 15 seconds) is calculated and compared to contralateral side. The ability to fulfill the test is a secondary reported outcome.

***Physical functioning***

*International Knee Documentation Committee score (IKDC)*

The IKDC is a questionnaire that objectifies knee impairment in three domains (4). The first domain includes symptoms such as pain, swelling or instability. The second domain includes sports and daily activities and the third domain reports on knee function. Scores range from 0-100, with a reported score of 100 indicating no pain, no limitations in sports or daily activities and excellent knee function.

*Oxford Knee score (OKS)*

The OKS is a 12-item questionnaire, initially developed to objectify pain and function after total knee replacements (5), but the modified version is used for multiple purposes (6). On each item, a score between 1 to 4 can be given (1 indicating ‘’no restrictions’’ and 5 indicating sufficient problems). The sum of all items reflects the total score, with a maximum of 48 points.

*Kujala Knee score/Anterior Knee Pain Scale (AKPS)*

The Kujala Knee score or AKPS was published by Kujala in 1993 (7) and is a self-reported 13-item questionnaire to objectify patellofemoral complaints with an ascending scale from 0 to 100. A score of 0 indicates poor outcomes and a score of 100 indicates excellent physical functioning.

*Lysholm Knee score*

The Lysholm Knee score is developed to objectify physical functioning after knee ligament surgery and includes eight items regarding pain, instability, locking complaints, stair climbing, support, swelling, walking pattern and squatting (8). The total score is the sum of all items with a maximum of 100 points. A total of 100 points indicates no disability. Scores between 95-100 points are considered to be excellent, 84-94 as good, 64-83 as fair and scores <64 as poor.

*Hospital for Special Surgery score (HSS)*

The HSS is developed to assess physical functioning after total knee replacement (9) and is divided into seven categories (pain, function, ROM, muscle strength, flexion deformity, instability and substraction). The maximum score is 100 indicating no discomfort.

*Olerud-Molander Ankle score (OMAS)*

The OMAS is a scoring system to objectify discomfort after ankle fractures (10) and includes nine categories (pain, stiffness, swelling, stair climbing, running, jumping, squatting, supports and work). The maximum score is 100 points and indicates no symptoms and normal physical function.

*Irrgang Outcome Survey Activities of Daily Life Scale*

The Irrgang Outcome Survey Activities of Daily Life Scale (11) is divided into two subcategories: symptoms and function. The symptoms subcategory includes pain, grinding or grating, stiffness, swelling, instability and weakness. The function subcategory includes walking, climbing the stairs, stand, kneeling, squatting and sitting. The score is presented as percentage. In order to calculate the percentage, the score on each separate scale is summed up and divided by the maximum score of 80 points.

***General quality of life***

*Short-Form 36 (SF-36)*

The SF-36 is developed to objectify general quality of life by measuring two distinct components (physical component and mental component) and includes eight scales (12). Scores can be given between 0 and 100, with a higher score representing less discomfort. Each scale contributes proportionally to the total score of the physical- and mental component.

*Short-Form 12 (SF-12)*

The SF-12 is a shortened version derived from the SF-36 and uses the same domains as the SF-36 (13).

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