ICUC Scores

A. Fernández, S.M. Perren, P. Regazzoni

July 2018

Measuring the outcome is a precondition for improvement in surgery. To be efficient and reliable a score needs to address a defined question with a reliable application that is simple to handle. The ICUC score uses for all anatomical regions the same bear minimum of questions to allow assessing subjective, patient reported, outcome and adds objective data e.g. documenting range of motion with their postoperative evolution. Therefore, it differs from existing scores in respect to restricted goal, and to restricted depth of data, all without limitation to restricted anatomical regions.

In contrast to the existing scores like DASH, MAYO and PRWE , which serve different purposes and are, therefore, either extensively detailed and/or limited to specific anatomical regions (1-4) the goal of the ICUC proposal is to create a score restricted exclusively to treatment of fractures and its evolution for general application in orthopaedics whereby priority is applied to:

1. Simple procedure, requiring minimal time enhancing optimal application which is a precondition for reaching complete and reliable assessment.
2. Obvious grading providing the bare minimum but with it best reliability.
3. Avoiding reducing to one average number elements that strongly differ in relevance.

Functional limitation and pain are each graded in 5 levels for present status (on a numerical scale from 0 to 4), including their evolution since last assessment (improving, stable or worsening). Photos that document function such as the range of motion (ROM) supplement independently of subjective grading the evaluation at every stage.

Functional Limitation according to patient (FL)

0 **Zero functional limitation.** Can do any activity, as before fracture.

1 **Can do most activities.** Some limitations of joint motion. Slight functional impairment.

2 **Can only do certain activities.** Clear limitation of joint motion. Marked functional impairment.

3 **Unable to do most activities.** Poor range of joint motion.

4 **Unable to do any activity.** Stiff joint.

Improving Stable Worsening

Pain (P)

0 Zero pain

1 Mild pain

2 Moderate pain

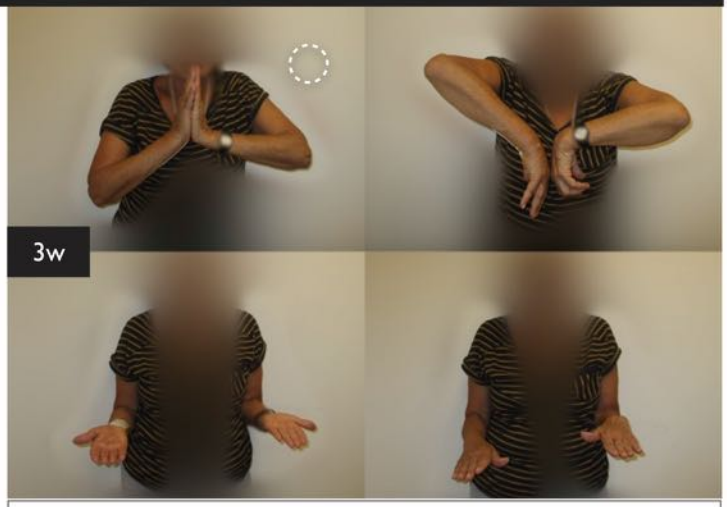
3 Intense pain

4 Worst possible pain

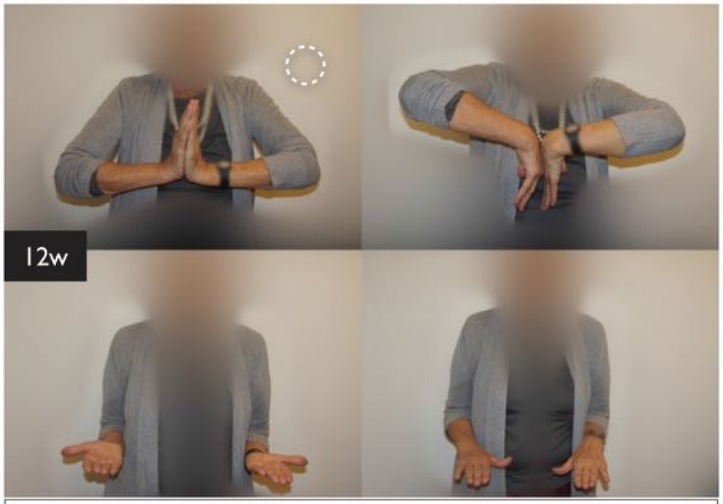
Improving Stable Worsening

Range of Motion documented objectively.

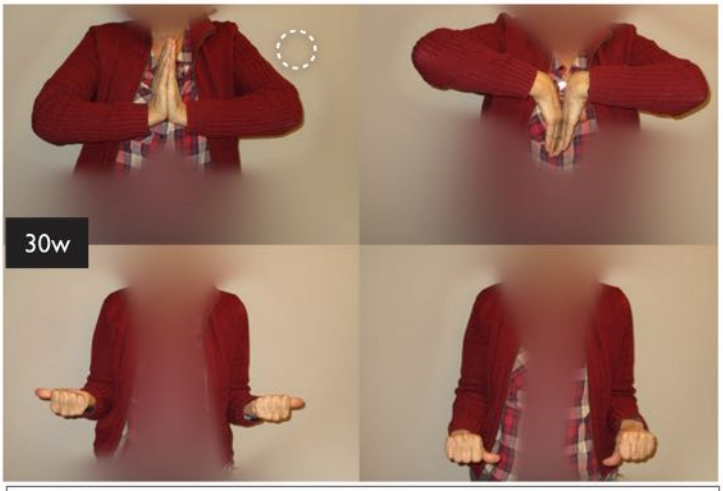
Distal radius - ICUC® Post series



Functional Limitation: **2** ▲ (0-4) - ***Pain:*** **2** ▲ (0-4)



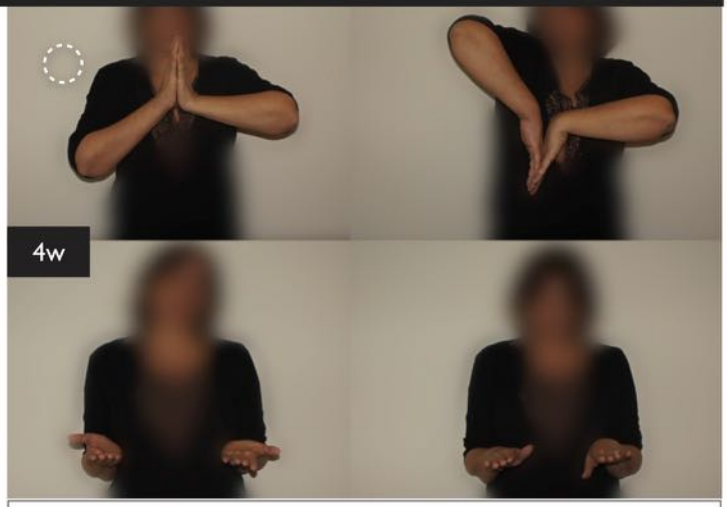
Functional Limitation: **1** ▲ (0-4) - ***Pain:*** **0** (0-4)



Functional Limitation: **1** ▲ (0-4) - ***Pain:*** **1** ▲ (0-4)

Functional Limitation: **0** (0-4) - ***Pain:*** **0** (0-4)

Distal radius - ICUC® Post series



Functional Limitation: **3** ▲ (0-4) - ***Pain:*** **2** ▲ (0-4)

Functional Limitation: **2** ▼ (0-4) - ***Pain:*** **2** ▼ (0-4)

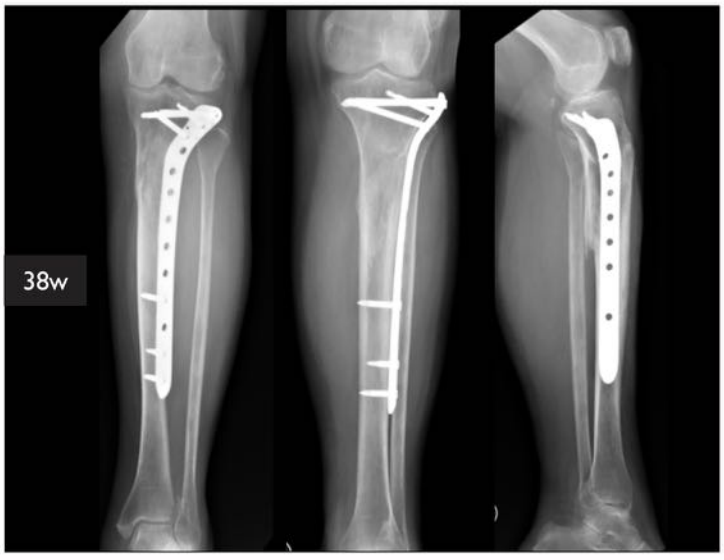
Functional Limitation: **3** ▲ (0-4) - ***Pain:*** **3** ▲ (0-4)

Functional Limitation: **1** ▲ (0-4) - ***Pain:*** **1** ▲ (0-4)

Tibial Shaft/Proximal Tibia - ICUC® Post series

Functional Limitation: **4** ▲ (0-4) - ***Pain:*** **1** ▲ (0-4)

Functional Limitation: **2** ▲ (0-4) - ***Pain:*** **3** ▲ (0-4)



Functional Limitation: **1** ● (0-4) - ***Pain:*** **2** ● (0-4)

Ankle - ICUC® Post series

Functional Limitation: **1** ▲ (0-4) - ***Pain:*** **1** ▲ (0-4)

Functional Limitation: **0** (0-4) - ***Pain:*** **0** (0-4)

References

1. Patient Reported Outcome Measures. WWW.AAOS.ORG/QUALITY/PERFORMANCE_MEASURES/PATIENT_REPORTED_OUTCOME_MEASURES/?SSOPC=1.

2. E. Nelson et al. Patient reported outcome measures in practice. Published 10 February 2015. BMJ 2015;350:G7818.

3. D. bennett, B. Hanratty, N. Thompson and D. Beverland: Measurement of knee joint motion using digital imaging. INT ORTHOP. 2009 DEC; 33(6): 1627–1631. DOI: 1007/S00264-008-0694-9.

4. ICUC www.icuc.net.