certainty) compared to the other limb in people with hip/knee osteoarthritis. As only two studies assessed responses to TMS, very low certainty evidence demonstrated no significant difference between knee osteoarthritis and healthy controls for motor evoked potential, intracortical facilitation, resting motor threshold or short-interval intracortical inhibition.

Conclusions Low certainty evidence suggests people with knee osteoarthritis have substantial impairments in voluntary activation of their quadriceps muscle when compared to healthy controls. With moderate certainty we conclude that people with hip and knee osteoarthritis had larger impairments in voluntary activation of the quadriceps in their more painful limb compared to their non-affected/other limb.

THE NATIONAL PREVALENCE OF PATELLAR DISLOCATION AND TROCHLEA DYSPLASIA: A STUDY FROM THE NATIONWIDE FAROESE KNEE COHORT

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Introduction To calculate the prevalence of patellar dislocation (PD) and trochlear dysplasia (TD) in a national cohort in the Faroe Islands.

Materials and Methods All inhabitants in The Faroe Islands aged 15 to 19 years were invited to answer an online survey. Three cohorts were established: 1) The background cohort consisting of the participants with no prior patellar dislocation, 2) The PD cohort consisting of all participants with prior PD, 3) The clinical PD cohort consisting of participants with prior PD who participated in the clinical and radiological follow-up.

Trochlear dysplasia was defined as one of the following: Dejour type A-D on X-ray, Lateral Trochlear Inclination angle < 11° or Trochlear Depth < 3 mm on MRI.

Results 3749 persons were contacted and 1637 (44%) completed the survey. 146 reported a prior PD and 100 participated in the clinical PD cohort. The national prevalence of PD was 8.9%. The prevalence of symptomatic TD was 6.8%. The prevalence of TD in the clinical PD cohort was 78%. 77.6% of patients with TD had bilateral TD. Only 27% of patients with bilateral TD had bilateral dislocations.

Conclusion The prevalence of PD in the Faroe Islands, a genetically homogenous small country, is markedly higher than reported in other countries and could indicate a genetic influence. The national prevalence of TD and the prevalence of TD in participants with prior PD is high. Most patients with TD exhibited the same pathology in the opposite knee with no clinical symptoms.

MEASUREMENT OF ANTERIOR KNEE LAXITY WITH THE ROLIMETER® CHANGES WITH FLEXION ANGLE BUT NOT WHEN A SHORTENED ROLIMETER® IS USED

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Introduction The most widely used instrument to measure anterior tibial is the Rolimeter®. Little is known about how knee flexion in the interval 10-40 degrees affects laxity measures. For smaller children the standard Rolimeter® is too long to fit onto tibia, so we have modified the Rolimeter®, reducing the length by 1/3. The aim of the study was to investigate whether anterior tibial translation measured by the Rolimeter® varies with degree of knee flexion in the interval 10-40 degrees, and with use of a standard or a shortened (“pediatric”) Rolimeter®.

Materials & Methods Forty-eight children and adults with an isolated ACL-rupture had anterior tibial translation measured with the standard Rolimeter® and the "pediatric" Rolimeter® in 10°, 20°, 30° and 40° degrees of flexion by two independent observers.

Results The weighted kappa showed moderate agreement between measurements made with the standard Rolimeter® and the "pediatric" version. T-tests demonstrated that anterior tibial laxity was significantly affected by the degree of knee flexion showing higher values with increasing flexion in the range 10°-40°. However, laxity of the injured and the non-injured knee changed with knee flexion to the same extent.

Conclusions It is important that repeated measurements of anterior tibial translation are made with the same degree of knee flexion. The variance in laxity dependent on flexion can be compensated for by comparison with the non-injured side. The shortened, “pediatric” Rolimeter® can be used in the daily clinic to supply valid instrumented measurements of ACL stability in smaller children.

SHOULDER PAIN

FACTORs INFLUENCING POSSIBLE OUTCOME IN ROTATOR CUFF RELATED SHOULDER PAIN: A MIXED METHODS STUDY

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Introduction Rotator Cuff Related Shoulder Pain (RCRSP) represents a significant individual and societal burden. While
Conservative treatments are recommended, it is uncertain whether there are any factors that can affect the prognosis.

This study investigated variations in modifiable factors between responders and non-responders to conservative treatment. The study likewise investigated the patient perspectives on factors they considered important for their outcome following conservative care.

Materials and Methods This explanatory mixed-methods study included data from 201 RCRSP patients who had at least 3/5 non-modifiable factors (symptoms duration >3 months, Baseline pain > 50/100 NRS, multiple pain sites, previous sick leave, BMI > 25). A reduction > 9 points on QuickDASH at 3 months follow-up, constituted the responders. Modifiable factors collected at baseline were treatment expectations, treatment satisfaction, kinesiophobia, fear-avoidance behaviors, activity levels, and quality of life.

Twelve qualitative, semi-structured interviews with an inductive goal-free approach were conducted with responders and non-responders. Results No statistically significant group differences were observed between any of the identified modifiable factors. The qualitative analysis revealed four overarching factors the patients considered important for their outcome:

- Improvement was attributed to cortisone injections
- The perceived lack of personalized treatment emerged as a potential factor influencing the lack of improvement.
- Identified structural changes when presence, were seen as a barrier for improvement
- Work-related issues

Conclusion Although no statistical group differences were found for modifiable factors, the qualitative analysis revealed elements that patients may consider important for recovery. Future studies can investigate whether addressing these systematically can improve outcome in RCRSP patients.

### CONCOMITANT DIAGNOSES IN PATIENTS WITH SUBACROMIAL PAIN SYNDROME. A CROSS-SECTIONAL STUDY IN A SECONDARY CARE SETTING

**Introduction**

Subacromial pain syndrome (SAPS) lacks recognized diagnostic criteria. This could lead to important variations in concomitant shoulder diagnoses across populations. Knowledge of this could lead to an individualized approach, improving the overall handling of patients with SAPS. The aim was to investigate the prevalence of concomitant shoulder diagnoses in patients with SAPS.

**Materials and Methods**

Patients were systematically screened for SAPS and for concomitant diagnoses using standardized diagnostic criteria: acromioclavicular osteoarthritis (OA), full-thickness rotator cuff tears, shoulder instability, long head biceps tendon pathology, labral lesions, and calcified tendinopathy. 17 standardized physical examination tests, radiographs, ultrasound, and MR were utilized. Tests were performed by experienced orthopedic specialists in accordance with predefined standardized protocols.

**Results**

We systematically screened 3321 patients of whom 576 presented with signs and symptoms of SAPS. 168 of these were diagnosed with conflicting shoulder-related diagnoses (e.g., frozen shoulder or glenohumeral osteoarthritis), 408 were diagnosed with SAPS. Of these, 171 (42%) had at least one concomitant shoulder diagnosis, with acromioclavicular osteoarthritis, full-thickness rotator cuff tear and biceps tendon pathology being the most frequent. 55 of the 171 patients (32%) were diagnosed with multiple, concomitant diagnoses.