**Additional file 2: Coding taxonomy for predictor variables**

*Grouping of tests*

|  |  |
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| Symptom response classification | CentralizationPeripheralization |
| Range of motion (ROM) | Spinal ROM Aberrant movement on spinal ROM Pain on spinal ROMFFD Modified Schober ROM of the hip Sacroiliac joint (SI) motion symmetry tests |
| Palpation | Palpation for tone, pain or asymmetryPalpation for mobilitySI palpation |
| Pain provocation tests | Kempfs test SI provocation tests Prone instability test Percussion |
| Muscle strength and endurance  | Muscle strength (not neurological) Muscle endurance  |
| Neurological tests | Neurological signs Cross SLR Femoral stretch SLRNaffziger sign |
| Nonorganic signs | Nonorganic signs |
| Functional tests  | Functional tests Leg length discrepancy  |

*Variations covered under each individual test (descriptions as used in studies)*

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| --- | --- |
| **Symptom response classification** | Centralization |
|  | Centralization with single movement testing |
|  | Periferalization |
|  | Periferalization with single movement testing |
| **Range of motion (ROM)** |  |
| Spinal ROM | T12 and S1-2 extension, flexion, lateral flexion |
|  | Limited sagittal lumbar mobility |
|  | Limited passive lumbar movement |
|  | Extension |
|  | Flexion |
|  | Ease of flexion |
|  | Flexion in degrees (4 categories) |
|  | Flexion (poor to low, good, unknown) |
|  | Limitation in amplitude of movement |
|  | Lateral flexion |
|  | Flexion and extension |
|  | Rotation |
|  | Thoracolumbar rotation |
|  | Trunk flexibility assessed by sit and reach test |
| Aberrant movement on spinal ROM | Instability catch |
|  | Painful arc of motion |
|  | Thigh climbing |
|  | Reversal of lumbopelvic rhytm |
| Pain on spinal ROM | Pain-related restriction of mobility |
|  | Pain on extension |
|  | Pain on standing extension |
|  | Pain on supine extension |
|  | Pain on flexion |
|  | Pain on lateral flexion |
|  | Pain on rotation |
|  | Number of painful movements |
| Fingertip to floor distance (FFD) | Greater FFD |
|  | FFD > 24 cm |
|  | FFD ≥ 17 cm |
| Modified Schober | Modified Schober |
|  | Schober |
| ROM of the hip | Flexion |
|  | Extension |
|  | Abduction |
|  | Rotation |
| Sacroiliac (SI) motion symmetry tests | Standing flexion |
|  | Seated flexion |
|  | Long-sitting |
|  | Prone knee bend |
|  | Gillet |
| **Palpation** |  |
| Palpation for tone, pain or asymmetry | Palpation – deep |
|  | Finger pressure on paraspinal area elicited radicular painPain on palpation |
|  | Tenderness of muscles |
|  | Tenderness of 6 points in low back and legs |
|  | Paraspinal muscle tone |
|  | Paraspinal muscle spasm |
|  | Palpation of six bony landmarks for asymmetry  |
|  | Sacral sulcus palpation test |
|  | Valleix points |
|  | Ligamentous laxity on a 9-point scale (higher number indication more laxity) |
|  | Number of painful spots in shoulder/neck area  |
|  | Number of painful spots in lumbar area |
|  | Segmental pain provocation |
| Palpation for mobility | PA mobility for each lumbar level |
|  | Spinal stiffness of most symptomatic level |
|  | Segmental hypermobility |
|  | Segmental hypomobility |
|  | Spring test |
| **Pain provocation tests** |  |
| Kempfs test  | Kempfs test  |
| SI provocation tests | Gainslen |
|  | Posterior shear |
|  | Compression/distraction |
|  | Patrick |
|  | Resisted hip abduction |
|  | Sacral thrust |
| Prone instability test | Prone instability test |
| Percussion  | Percussion  |
| **Muscle strength and endurance** |  |
| Muscle strength (not neurological)  | Static trunk muscle strength |
|  | Dynamic trunk muscle strength |
|  | Isokinetic muscle strength |
|  | Maximum isometric extension |
|  | Trunk fleksion |
|  | Trunk extension |
|  | Hip flexion |
|  | Hip abduction |
|  | Active SLR |
|  | Active sit-up |
|  | Back and abdomen |
|  | Abdominals |
|  | Arm strength |
|  | Ability to do squats |
| Muscle endurance  | Biering-Sorensen |
|  | Modified Biering-Sorensen |
|  | Abdominals |
|  | Isometric abdominal muscle endurance |
|  | Back |
|  | Isometric back flexors |
|  | Isometric back extensors |
|  | Lateral flexors (side support test) |
|  | Index based on sit-ups, back extensions, hip extensions |
| **Neurological tests** |  |
| Neurological signs | Nerve root tension: SLR + neurological signsNeurological signs2 or more: ankle and patella reflexes, sensory loss, weakness in foot and/or thigh musclesReflexes, strength, sensibility. Present if any of them were positiveAbnormality of reflexes, impaired reflex (ankle/patella)L4, L5, S1Achilles reflexKnee reflexStrength, motor deficit, muscle weaknessMotor changes in legWeakness in L5 or S1 nerve root distributionMuscle strength: great toe extensionMuscle strength: toe-heel testMuscle strength: toe- and heel walkManual strength testParesisMeasurable muscle atrophySensibilitySensory changesSensory deficitHypoaesthesiaLight touch (hypaesthesia)Pain on sensation (hypalgesia)Sensory loss in an anatomic distributionRhomberg´s |
| SLR | SLR SLR > 75 degreesSLR > 50 degreesSLR - limitedSLR discrepancySLR sitting SLR – pain on SLRSLR – left and right typical sciaticaLaseque´s sign (positive Laseque = evoked radiating pain in leg beyond the knee)Bragard |
| Cross SLR | Cross SLR |
|  | Reversed Laseque |
| Femoral stretch test | Femoral stretch test |
| Naffziger sign | Naffziger sign |
| **Non-organic signs** | Non-organic signs: 1 or > of 83:5 positive ≥ 3 signs Simulated axial loadingSimulated rotationGeneral overreaction to examination/disproportionate verbalizationSuperficial tendernessRegional weaknessWidespread nonanatomic painRegional sensory deficitDistracted SLRPain on cough/sneezeSigns of inappropriate illness behaviourBehavioural signs: ”Two out of four”The step testThe pseudo strength test”Sham” sciatic tension test (SLR with plantarflexion of foot) |
| **Functional tests** | Lifting abilityJumpingPushing and pullingLumbar lifting ability (lift from floor to waist)Cervical lifting ability (lift from waist to shoulder)Time to complete walkTrouble moving during examination |
| Leg length discrepancy | Leg length discrepancy |