

Revision checklists

History taking

Symptoms

- Pain
- Swelling
- Stiffness
- Limp
- Pattern of joint involvement

Evolution

- Acute or chronic?
- Associated events
- Response to treatment

Involvement of other systems

- Skin, eye, lung or kidney symptoms?
- Malaise, weight loss, fevers, night sweats?

Impact on patient's lifestyle

- Patient's needs/aspirations
- Behavioural changes
- Impact at school
- Limitation of activities

Focused questions for the child with a learning disability

- Regression in motor milestones?
- Change in behaviour?
- Subtle adaptations noted to perform activities?
- Change in gait or shape of fingers?

pGALS screening questions

- Any pain, swelling or stiffness in muscles, joints or back?
- Dress completely without any difficulty?
- Walk up and down stairs without any difficulty?

pGALS screening examination

Gait

- Observe walking including on tiptoes and heels
- Observe patient standing: Front, sides and back

Arms

- Hands in front, palms down, fingers outstretched
- Backs of hands, make fist
- Each finger in turn to touch thumb
- Palpate metacarpophalangeal joints
- Hands together, then back-to-back
- Reach up, 'touch the sky', 'look at ceiling'
- Hands behind neck

Legs

- Patient lying supine
- Comment on muscle bulk, leg alignment, symmetry
- Inspect soles of feet
- Palpate for an effusion at knee
- Flex and extend the knee (active and passive)
- Palpate for crepitus of the knee
- Internal rotation of hip

Spine

- Inspect spine: comment on appearance
- Place ear to shoulder
- Bend and touch toes
- Open mouth and place 3 fingers vertically within

pREMS General Principles

Introduction

- Introduce
- Explanation
- Verbal consent
- Places child at ease
- Observe for pain

Look

- Scars, swelling, rashes
- Muscle wasting
- Posture, alignment of joints
- Footwear, walking aids
- Ensure appropriately exposed

Feel

- Temperature
- Swelling
- Tenderness
- Crepitus
- Muscle tone

Move

- Full range of movement – active and passive
- 'Copy me' approach
- Restriction – mild, moderate or severe?

Function

- Comment on functional assessment of joint

pREMS examination of the hand and wrist

- Introduce yourself/gain consent to examine
- Inspect hands (palms and backs) for muscle wasting skin and nail changes
- Check wrist for carpal tunnel release
- Feel for radial pulse, tendon thickening and bulk of thenar and hypothenar eminences
- Assess median, ulnar and radial nerve sensation
- Assess skin temperature
- Squeeze MCP joints
- Bimanually palpate swollen or painful joints, including wrists
- Look and feel along ulnar border
- Assess full finger extension and full finger tuck
- Assess wrist flexion and extension – active and passive
- Assess median and ulnar nerve power
- Assess function: grip and pinch, picking up small object
- Perform Tinel's test (if suggestion of carpal tunnel syndrome)
- Special tests: nailfold capillaroscopy, hypermobility assessment

pREMS examination of the elbow

- Introduce yourself/gain consent to examine
- Look for scars, swellings or rashes
- Assess skin temperature
- Palpate over head of radius, joint line, medial and lateral epicondyles
- Assess full flexion and extension, pronation and supination – actively and passively
- Assess function – e.g. hand to nose or mouth
- Special tests: muscle power, peripheral nerves, peripheral pulses, hypermobility, entheses

pREMS Examination of the shoulder

- Introduce yourself/gain consent to examine
- Inspect shoulders from in front, from the side and from behind
- Assess skin temperature
- Palpate bony landmarks and surrounding muscles
- Assess movement and function: hands behind head, hands behind back
- Assess (actively and passively) external rotation, flexion, extension and abduction
- Observe scapular movement
- Special tests: muscle power, peripheral nerves, peripheral pulses, hypermobility

pREMS examination of the hip

- Introduce yourself/gain consent to examine

With the patient lying on couch:

- Look for flexion deformity and leg length disparity
- Check for scars
- Feel the greater trochanter for tenderness
- Assess full hip flexion, internal and external rotation
- Perform the Thomas test
- Measure leg length
- Special tests: Gowers's test, entheses, muscle power, hypermobility

With the patient standing:

- Look for gluteal muscle bulk
- Measure thigh girth
- Perform the Trendelenburg test
- Assess the patient's gait

pREMS examination of the knee

- Introduce yourself/gain consent to examine

With the patient lying on couch:

- Look from the end of the couch for varus/valgus deformity, muscle wasting, scars and swellings
- Look from the side for fixed flexion deformity
- Assess skin temperature
- With the knee slightly flexed palpate the joint line and the borders of the patella
- Feel the popliteal fossa
- Perform a patellar tap and cross fluctuation (bulge sign)
- Assess full flexion and extension (actively and passively)
- Assess stability of knee ligaments medial and lateral collateral – and perform anterior draw test
- Measure leg length, thigh girth
- Special tests: Clarke's test, patellar tracking, thigh-foot angle, hamstring and iliotibial tightness, knock-knee/bow-leg assessment, hypermobility

With the patient standing:

- Look again for varus/valgus deformity and popliteal swellings
- Assess the patient's gait

pREMS examination of the foot and ankle

- Introduce yourself/gain consent to examine

With the patient lying on couch:

- Look at dorsal and plantar surfaces of the foot
- Assess skin temperature
- Palpate for peripheral pulses
- Squeeze the MTP joints
- Palpate the midfoot, ankle joint line and subtalar joint
- Assess movement (actively and passively) at the subtalar joint (inversion and eversion), the big toe (dorsi- and plantar flexion), the ankle joint (dorsi- and plantar flexion) and mid-tarsal joints (passive rotation)
- Look at the patient's footwear
- Measure leg length
- Special tests: thigh-foot angle, hypermobility, entheses, muscle power, nailfold capillaroscopy

With the patient standing:

- Look at the forefoot, midfoot (foot arch) and the hindfoot
- Assess the gait cycle (heel strike, stance, toe-off)

pREMS examination of the spine

- Introduce yourself/gain consent to examine

With the patient standing:

- Inspect from the side and from behind
- Palpate the spinal processes and paraspinal muscles
- Assess movement: lumbar flexion and extension and lateral flexion; cervical flexion, extension, rotation and lateral flexion
- Special tests: one-leg standing spine extension test

With the patient sitting on couch:

- Assess thoracic rotation

With the patient lying on couch:

- Perform straight leg raising and dorsiflexion of the big toe
- Assess limb reflexes

Examination tips for children with a learning disability, especially Down's syndrome

- Be opportunistic – observe child move around the room and in play
- DA most commonly affects the small joints of the hands and wrists. Start with these joints if the child is not likely to tolerate a full examination
- Compare sides, as it may be difficult to appreciate joint restriction in a child with joint hypermobility