APPENDIX 1. Various Shoulder Examinations

The list of tests is given for those who have a special interest in shoulder problems, or perhaps do a lot of shoulder injections. For clinicians who wish a quick shoulder assessment method, Appendix 3 may be more suitable. Many of these tests are hard to describe in words, and a short video on each is provided on the following site: http://www.arthritisresearchuk.org/health-professionals-and-students/video-resources/rems/examination-of-the-shoulder.aspx looking at this before or during a PBSGL meeting, possibly by examining each other, might be beneficial for group members who have a special interest in this topic.

| Test | Description | Potential indicators | | |
|--|--|---|--|--|
| Rotator Cuff Movement and Strength | | | | |
| Empty-can (Jobe's or SS muscle strength test) | Arm fully extended, abducted to 90°, flexed forward 30°, internally rotated. Examiner applies downward force. | Potential RC tear (supraspinatus) (SN 63-95; SP 55-68) | | |
| Lift-off (or push-off) | Patient adducts and internally rotates arm behind back; resistance is provided against attempt to push arm away from body. | Pain or weakness suggests tendinopathy or tear | | |
| Drop-arm | Examiner passively abducts patient's arm to 90° and then releases. | Test is positive for supraspinatus tear with pain and inability to keep arm up Sudden drop = tear | | |
| Subacromial Impingement | | | | |
| Hawkins | Stabilize scapula; passively abduct shoulder to 90°; flex shoulder 30°; flex elbow 90°; internally rotate shoulder. | Pain = positive for possible impingement (SN 74–92; SP 25–57) | | |
| Neer | Stabilize scapula; with thumb pointing downwards, passively flex the arm. | Reproduction of pain = possible impingement (SN 75–89; SP 30–58) | | |
| Hawkins, Neer, painful a | rc, empty can, resisted external rotation; 3 or more positive tests =SN | 75; SP 74 for subacromial impingement ¹ | | |
| Labrum & Biceps (because of biceps attachment to labrum) | | | | |
| O'Brien's | Flex shoulder (thumb down) 90°; adduct arm across midline; resistance against further shoulder flexion. | If pain present with thumb down but relieved with thumb up, suspicious for labral tear | | |
| Crank | Patient abducts arm to 90°, elbow flexed at 90°. Examiner applies axial load while the arm is rotated internally. | Pain with associated clicking, grinding or catching. (SN .34; SP 75) ¹ Limited ability to rule in SLAP lesion ¹ | | |
| Speed | Elbow in full extension. Shoulder flexed forward against resistance. | Weakness and pain – biceps tendonitis or tear. May indicate SLAP tear (SN 32, SP 79) ⁴ | | |
| Yergason's | Elbow at 90°, shake hands, resist supination. | Possible biceps tendinopathy; (SLAP lesion only SN 43; SP 75) ⁴ | | |
| Instability | | | | |
| Apprehension & relocation | Patient supine. Abduct shoulder to 90° with elbow bent 90°; rotate externally. | Apprehension about dislocation anteriorly = potential anterior GH instability | | |
| | Following positive apprehension test. Downward pressure on GH joint. | Pain alone is not a positive test Relief of apprehension, further suggests dislocation | | |
| A/C joint | | | | |
| Cross-body adduction | Flex shoulder to 90° and adduct arm across body. | Pain may indicate AC joint arthritis or subluxation | | |
| C-spine | | | | |
| Spurling's | Patient extends neck and rotates toward painful shoulder; load applied to the cervical spine. | Pain may suggest cervical root impingement | | |

Sources

- 1) Hegedus EJ, Goode AP, Cook CE, Michener L, Myer CA, Myer DM et al. Which physical examination tests provide clinicians with the most value when examining the shoulder? Update of a systematic review with meta-analysis of individual tests. Br J Sports Med 2012. PM:22773322
- 2) Alqunaee M, Galvin R, Fahey T. Diagnostic accuracy of clinical tests for subacromial impingement syndrome: a systematic review and meta-analysis. Arch Phys Med Rehabil 2012; 93(2):229-236. PM:22289231
- 3) Beaudreuil J, Nizard R, Thomas T, Peyre M, Liotard JP, Boileau P et al. Contribution of clinical tests to the diagnosis of rotator cuff disease: a systematic literature review. Joint Bone Spine 2009; 76(1):15-19. PM:19059801
- 4) Calvert E, Chambers GK, Regan W, Hawkins RH, Leith JM. Special physical examination tests for superior labrum anterior posterior shoulder tears are clinically limited and invalid: a diagnostic systematic review. J Clin Epidemiol 2009; 62(5):558-563. PM:19230608
- 5) Descriptions: Musculoskeletal Shoulder Examination; University of Michigan Department of Family Medicine. http://www.sitemaker.umich.edu/fm_musculoskeletal_shoulder/neer_s_test.



APPENDIX 2. Resources

American Academy of Orthopaedic Surgeons website – ** **Excellent patient handout** for physicians or patients to print with images for Shoulder/Rotator Cuff Stretching and Strengthening Exercises. http://orthoinfo.aaos.org/PDFs/Rehab_Shoulder_5.pdf

UK website. Patient handout with descriptions of exercises for frozen shoulder, right from the painful phase through the thawing phase. Unfortunately, no images included, but a number of different exercises provided. http://www.sheffieldshoulderpain.com/assets/info%20leaflets/Frozen%20shoulder%20exercises.pdf



Diagnosis of Shoulder problems in Primary Care: Guidelines on treatment and referral Red Flags = Urgent Referral 1. Trauma, pain and weakness - ? Acute cuff tear 2. Any mass or swelling - ? Tumour Is it Neck or Shoulder? 3. Red skin, fever or systemically unwell - ? Infection 4. Trauma / epileptic fit /electric shock leading to · Ask the patient to first move loss of rotation and abnormal shape the neck and then move the -? Unreduced dislocation shoulder. · Which reproduces the pain? Refer to Shoulder Clinic **Primary Care** Neck Instability Follow local Common age 10 - 35 yrs spinal service • Traumatic dislocation Yes Refer completely come out of joint? Is your patient worried that their Ongoing symptoms Atraumatic with failed physio Acromioclavicular Joint Acromioclavicular Joint Is the pain localised to the AC <u>Disease</u> joint and associated with Common age >30 yrs tenderness? · Refer if transient or no Refer response to injection and · Is there a positive cross arm test. Glenohumeral Joint Glenohumeral Joint Frozen shoulder Common age 35-65 years If frozen shoulder with normal x-ray - refer if atypical and/or Common age >60 years • Is there reduced passive Refer severe functional limitation. Refer if arthritis on x-ray and poor response to analgesics and injection. Is there a painful arc of abduction? **Rotator Cuff Rotator Cuff Tendinopathy** Common age 35-75 years • Transient or no response to Refer injection and physiotherapy N.B. A history of trauma with loss of abduction in a younger patient = Red Flaq 1 N.B. Massive cuff tears in patients > 75 years are generally not repairable. Other cause of Neck or Arm pain



The British Elbow and Shoulder Society supports

Best Practice Patient Pathways for the Shoulder





| PBSGL Individual reflection sheet Topic | Date |
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| Main learning points for me | Application to practice – what will I change? |
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If it is helpful, you can use this sheet to record your own learning points and how this may impact on your practice. This will help inform the discussion that is focussed on completion of the PBSGL log-sheet towards the end of your meeting and also may form a personal record of your learning for appraisal purposes. Note to facilitators: the group log sheet – a very different document to this one - is much easier to complete online: Please log in to the CPD connect website http://www.cpdconnect.nhs.scot/login then click on your group code which you will find just under 'My Group(s)/Membership' on the PBSGL page below the menu on the left hand side of screen. Once you click on this you will be taken into Log sheet Administration where you can add new log sheets or view, edit, delete existing log sheets. Completing that is an important part of the group's reflection on a topic, so please leave enough time to do so at the end of each meeting. Thank you.