SMALL GROUP SESSION 16
January 3rd or 5th
Shoulder pain case/ Touch workshop/ Upper Extremity Examination

Readings for this week:
http://www.annals.org/issues/v137n12/full/200212170-00016.html

Complete the module: Principles of Musculoskeletal Exam and the Upper Extremity Exam at the course web-site.


Prepare by:
Wearing clothing for examining each others’ shoulders and upper extremities (tank tops, loose T-shirts).

Someone should bring anatomy text and atlas. It will be helpful!

Brief Outline:
Section 1. Touch Base
Section 2. Case Discussion: A Patient With Shoulder Pain
Section 3. Touch and Upper Extremity Workshop
Section 4. Evaluate Session
Section 1. Touch Base (20 minutes)

Welcome back from break!

Section 2. A Patient With Shoulder Pain
(History 15 minutes, Case Discussion 60 minutes)

Objectives:

1. To practice taking a medical history (with a mentor acting as the patient)
2. To begin to develop an approach to analyzing a clinical case.
3. To apply knowledge of shoulder anatomy

Logistics:

1. One mentor (male preferred for this case) will play the part of the patient; students take turns taking a medical history. GIVE EACH OTHER FEEDBACK on history taking. After you obtain the history, you will receive a one-page summary of the history.

2. One person – the scribe – will take notes on the board. We suggest that a mentor be scribe for this session, and that you write findings or questions in several columns:

   - History
   - Physical findings
   - Anatomy
   - Issues (physician, patient, ethical)
   - Diagnostic possibilities
   - Laboratory and test findings, if any

3. At the end of the discussion, choose learning objectives raised by your case discussion that you would like to research and report to the group next week.
CASE DISCUSSION SUGGESTIONS

1. The point of the cases is not to make the diagnosis, though that can be an enjoyable part of it. More important is to apply what you are now learning to common medical problems in real life situations. In this and later cases, though, you will practice diagnostic thinking – thinking like a doctor.

2. If you are at a loss, here are some **suggested learning objectives**:
   - What is the surface anatomy of the shoulder?
   - What muscles and ligaments attach at the shoulder?
   - Which one(s) may have been injured in this patient?
   - What are the neural (nerve) connections to the shoulder?
   - How might this problem affect him? His employability? His ability to pull his weight in his family? His recreational life? His insurability?

3. Your small group sessions in the library during Cells to Society and Genetics should have prepared you to research your objectives for this case. Some suggestions: MD Consult; practical textbooks such as Office Orthopedics for Primary Care or The Musculoskeletal Manual; your physical diagnosis textbook; your anatomy textbook.
SECTION 3: UPPER EXTREMITY EXAMINATION AND TOUCH WORKSHOP  
(Discussion 25 minutes, Examination 60 minutes)

Objectives:

1. To discuss the role of touch in physician-patient interactions  
2. To discuss how to approach a patient from a different culture about issues related to the physical examination  
3. To learn the upper extremity examination 

1. Touch workshop:

In examining the upper extremity, you will be touching each other in a medical context. Before doing this, take a few minutes to discuss touch.

Long before physicians and modern medicine, touch has been associated with healing. It can be a literal way to make contact and express caring, as well as one of a physician’s tools to diagnose disease.

Touch also has different meanings in different cultures. For example: some of you may feel uncomfortable, for cultural or personal reasons, being touched by someone of opposite (or the same) gender. If so, tell your mentors!

Some things you may want to discuss before you touch each other:

1. What is your own reaction to touch by a stranger? By a friend? By a doctor?  
2. How does your family background, cultural context and individual personality contribute to your reaction to touch?  
3. What potential issues might arise during examination of an individual from another culture? How should this be approached?  
4. How do you feel about touching others when you are the examiner? Do particular situations make you more or less uncomfortable?  
5. As you are examined during this session: how do you feel? Why?
UPPER EXTREMITY EXAMINATION:

This will include: inspection, range of motion, palpation, and strength, as well as a few special tests.

1. The **shoulder**:
   - **inspect** for symmetry, deformity and discoloration
   - **do range of motion**: abduction, adduction, flexion, extension, internal rotation, external rotation
   - **palpate** surface landmarks: the scapular spine, acromion, acromioclavicular joint, clavicle and bicipital groove
   - **assess strength**: ask patient to shrug shoulders, flex shoulder and abduct shoulder against your resistance.

2. The **elbow**:
   - **inspect** for symmetry, deformity and discoloration
   - **do range of motion**: flexion, extension, pronation, supination
   - **palpate** for swelling or tenderness; palpate for crepitus during motion
   - **assess strength**: have patient flex and extend elbow against resistance
   - **Maneuvers of the elbow**: palpate for tenderness at the lateral epicondyle (a sign of lateral epicondylitis – “tennis elbow”) and medial epicondyle.

3. The **wrist and hand**:
   - **inspect** for symmetry, deformity and discoloration; assess thenar and hypothenar eminence
   - **do range of motion**: flexion, extension, flexion toward the ulna and toward the radius, flexion and extension at metacarpophalangeal (MCP) joints, and make a fist
   - **palpate** wrist, carpometacarpal (CMC), MCP and proximal interphalangeal (PIP) joints for swelling or tenderness
   - **assess strength**: have patient flex and extend wrist against resistance, grip your fingers, abduct fingers and hold together thumb and small finger (opposition) against resistance
   - **Special maneuvers of the wrist (optional)**:
     - **Tinel’s sign**: tap on the palmar side of the wrist; in carpal tunnel syndrome, this elicits pain and tingling into the hand
     - **Phalen’s sign**: patient holds wrist flexed at 90 degrees for one minute. In carpal tunnel syndrome, this causes pain and tingling in the hand

SECTION 4. Evaluate Session (5 minutes)

How did this session go? What went well? How can your group do things better next time?
## Physical Diagnosis
### Objective Structured Clinical Examination (OSCE)

#### Upper Extremity Exam

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Comments</th>
<th>A</th>
<th>B</th>
<th>C</th>
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<tbody>
<tr>
<td>1. SHOULDER Inspection</td>
<td>Assess symmetry, deformity and discoloration. (Ex states what they are inspecting for)</td>
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<tr>
<td>2. SHOULDER Range of motion</td>
<td>Examiner asks patient to flex, extend, abduct (full arc), internally rotate (elbow flexed, thumb at opposite scapula) and externally rotate (elbow flexed, hands out at sides or behind head) both shoulders.</td>
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<tr>
<td>3. SHOULDER Palpation</td>
<td>Ex. palpates scapular spine, acromion process, acromioclavicular joint and bicipital groove (one side OK).</td>
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<td>4. SHOULDER Strength</td>
<td>Ex resists patient while patient shrugs shoulders, flexes shoulder forward and abducts shoulder.</td>
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<td>5. ELBOW Inspection</td>
<td>Assesses symmetry, deformity and discoloration. (Ex states what they are inspecting for)</td>
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<td>6. ELBOW Range of motion</td>
<td>Pt. flexes, extends, pronates (elbow at 90, palm down) and supinates (elbow at 90, palm up) both elbows.</td>
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<tr>
<td>7. ELBOW Palpation</td>
<td>Ex. palpates lateral epicondyle, medial epicondyle and olecranon process (one side OK).</td>
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<td>8. ELBOW Strength</td>
<td>Ex. resists patient while patient flexes and extends elbow.</td>
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<td>9. WRIST and HAND Inspection</td>
<td>Assesses symmetry, deformity and discoloration. Assesses thenar and hypothenar eminence. (Ex states what they are inspecting for)</td>
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<tr>
<td>10. WRIST and HAND Range of motion</td>
<td>Pt flexes and extends wrist. Pt moves hand to ulnar and radial sides. Pt flexes and extends fingers at MCP joint with fingers straight, and makes fist.</td>
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<tr>
<td>11. WRIST and HAND Palpation</td>
<td>Ex. palpates wrist, CMC, MCP and PIP joints.</td>
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<td>12. WRIST and HAND Strength</td>
<td>Ex. resists patient while patient flexes and extends wrist, assesses grip strength, resists finger abduction, and resists opposition of thumb and small finger.</td>
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