The Center of Excellence in Musculoskeletal Medicine: an Inter-professional, Inter-disciplinary Patient Care and Education Initiative at the George E. Whalen Veterans Affairs Salt Lake City Health Care System

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Disclosure

• Nothing to disclose

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Objectives

• To describe the core elements of the inter-professional Center of Excellence (COE) in Musculoskeletal Care at the Salt Lake City VA
• To discuss the specific curricular components of the COE “Intensive Education Week”
• To review some of the evaluation measures developed and used in this inter-professional educational collaboration

Salt Lake City VA Center of Excellence and the Academic Mission

Center of Excellence Team: Inter-professional and Inter-disciplinary

• Primary Care
  – Physicians
  – Physician Assistant
  – Nurse Practitioner
• Rheumatology
  – Physicians
  – Nurse Practitioner
• Orthopaedics
  – Physicians
  – Nurse Practitioner
• Endocrinology
  – Physician
• Physical Medicine and Rehabilitation
  – Physician

Center of Excellence Trainees: Inter-professional and Inter-disciplinary

• Undergraduate
  – Medical Students
  – Nurse Practitioner Students
  – Physician Assistant Students
• Post-graduate
  – Internal Medicine
  – Orthopaedics
  – Physical Medicine and Rehabilitation
  – Occupational Medicine
  – Rheumatology (fellows)
  – Endocrinology (fellows)
Trainees consistently describe lack of confidence and competence.

- Developed systematic, orthopaedic-based exams useful in Primary Care context.
  - Easy to recall
  - Quick to perform
- Checklists, photographs, videos

**Example: Shoulder Physical Examination**

**Example: Knee Physical Examination**

| COE Intensive Education Week Didactics:
Physical Exam of Shoulder and Knee |
<table>
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<tbody>
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  - Quick to perform |
| • Checklists, photographs, videos |

**COE Intensive Education Week**

- **Monday**
  - Course Introduction
- **Tuesday**
  - Introduction to Shoulder Exam
  - Shoulder Cases
  - Lunch
- **Wednesday**
  - Shoulder Cases
  - Orthopaedic Clinic
  - Primary Care Multidisciplinary Clinic
  - Lunch
- **Thursday**
  - Orthopaedic Injection Clinic
- **Friday**
  - COE Multidisciplinary Clinic

**COE Intensive Education Week Didactics:**

**- Didactics**

- Physical examination of the shoulder and knee
- Shoulder and knee pain in primary care setting
- Metabolic aspects of bone health
- Evaluating rheumatologic complaints in primary care
- Back pain in primary care

**Example: Knee Physical Examination**

**ACL: Anterior Drawer Test**
- Knee flexed 90°
- Stand knee test
- Thumbs on anterior iliac
- Translate anteriorly

**ACL: Lachman Test**
- Knee flexed 90°
- Hand rests on table
- One hand dorsal to knee, other proximal
- Grasp tibia and ankle

**Key:**
- Right knee anterior to RILAST

**COE Intensive Education Week Didactics:**

**Shoulder Pain**
- Rotator cuff pathology
  - Tendonitis/partial tear
    - Full-thickness tear
  - Glenohumeral osteoarthritis
  - Acromioclavicular osteoarthritis
  - Biceps tendinitis
  - Adhesive capsulitis

**Knee Pain**
- Osteoarthritis
- Meniscal injury
- Ligamentous injury
- Patellofemoral syndrome
- Bursitis
COE Intensive Education Week Didactics: Osteoporosis and Osteopenia

- Definitions of and risk factors for osteoporosis and osteopenia
  - Calcium and vitamin D metabolism
  - Hypogonadism and other endocrinologic aspects of bone health
- Appropriate use of DXA for screening and monitoring
- Panel Review

COE Intensive Education Week Didactics: Evaluation of Rheumatologic Complaints

- Case-based learning
- Distinguishing inflammatory from non-inflammatory joint pain
- Review and application of ACR OA guidelines
- Review and application of ACR gout guidelines
- Overview of serologies and their appropriate use in evaluating patients in primary care

COE Intensive Education Week Didactics: Approach to Back Pain in Primary Care

- Review of ACP/APS guidelines on evaluation and management of back pain
- Review of appropriate imaging for patients with back pain
- Discussion of the principles of the “Choosing Wisely” initiative and high-value care in the context of back pain

COE Intensive Education Week: -Skills Sessions-

- Physical Exam Practice
- Physical Exam Cases
- Arthrocentesis Training

COE Education Week Skills Session: Physical Exam Practice

- Reinforce skills
- Peer-teaching
- Exam is practiced repeatedly fostering memorization

COE Education Week Skills Session: Physical Exam Cases

- Faculty as simulated patient
- Trainee interviews and examines the faculty member in the presence of the group
- Trainee interprets their findings and is asked about management plans
- Essentially a “public OSCE”, intended for formative feedback to trainee, with learning through group interaction and discussion
**COE Education Week Patient Experiences: Rheumatology Clinics**
- Provides experiences with patients who have osteoarthritis, rheumatoid arthritis, gout, vasculitis, spondyloarthritis, and other rheumatic diseases
- Trainees become familiar with principles of diagnosis, drug monitoring, disease activity assessment, and other aspects of caring for patients with rheumatic disease

**COE Education Week Patient Experiences: Orthopaedic Injection Clinic**
- Procedural clinic
- Provides experiences for trainees to observe an orthopaedic approach to joint injection
- Patients attending this clinic typically have osteoarthritis and are returning for periodic corticosteroid or viscosupplementation injections

**Primary Care Musculoskeletal Clinic**
- Bridge gap between primary care and specialty services
- Patient care → Education
- Inter-professional and inter-disciplinary
  - Primary Care PA
  - Primary Care/Rheumatology Physician
  - Rheumatology fellow
  - Internal Medicine Residents
  - PA and NP students

**COE Education Week Intensive Education Week: Rheumatology Clinic**
- Rheumatology Clinic
- Orthopedic Clinic
- Primary Care Musculoskeletal Clinic
- Multidisciplinary Musculoskeletal Clinic
COE Education Week Patient Experiences: Multidisciplinary Musculoskeletal Clinic

- Provides opportunity for trainees to see complex patients who have been referred for a collaborative clinical evaluation by rheumatology, orthopaedics, endocrinology, and physical medicine & rehabilitation—in addition to primary care—during a single visit.

Self-Assessment

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<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shoulder Pain</td>
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</tr>
<tr>
<td>1. I can perform a physical examination of the shoulder that allows me to diagnose common causes for shoulder pain without the need for MRI</td>
<td>1 2 3 4 5</td>
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<tr>
<td>2. I can evaluate patients with shoulder pain effectively</td>
<td>1 2 3 4 5</td>
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<tr>
<td>3. I can develop a management plan for patients with shoulder pain that is appropriate to their diagnosis</td>
<td>1 2 3 4 5</td>
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<td>4. I understand when it is appropriate to order imaging of the shoulder</td>
<td>1 2 3 4 5</td>
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<tr>
<td>5. I understand when to refer patients with shoulder pain for specialty evaluation</td>
<td>1 2 3 4 5</td>
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COE Intensive Education Week: -Evaluation-

- Self-study questions
- Pre- and post-course self-assessment
- Objective Structured Clinical Examination (OSCE)

OSCE

- 2 stations
  - Knee
  - Shoulder
- 2 faculty per station
  - Simulated patient
  - Rater

COE Trainee MSK Mini-Residency 2012 – 2013

- 55 total trainees
  - Internal Medicine
  - Physical Medicine & Rehab
  - Nursing
  - Physician Assistant
  - Rheumatology
  - Medical Student
  - Endocrinology
  - Physical Therapy
  - Orthopaedic Surgery

COE Trainee MSK Mini-Residency Projected 2013 – 2014

- 73 total trainees
  - Medicine
  - Physician Assistant
  - Nursing
  - Orthopaedics
  - Physical Medicine & Rehab
  - Medical Student
  - Occupational Medicine
Summary

- With support from the VA Office of Academic Affiliations, we developed an inter-professional and inter-disciplinary Center of Excellence in MSK Care at the SLC VA
- A core element of this program is the “Intensive Education Week”, which provides MSK education to trainees across a broad range of professions and disciplines
- Additional elements beyond the intensive weeks include new primary care MSK and multidisciplinary MSK clinics