Enhancing Your OMT Skills While on Rotations

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Objectives

• Create OMT objectives appropriate to your skill level for each rotation.

• Predict some of the potential obstacles to incorporating OMT on rotation

• Identify resources that allow for independent learning

• Identify several potential partners and strategies to increase your OMM training
Your Core Rotations

- Family Medicine (outpatient)
- Internal Medicine (inpatient)
- Surgery
- Ob/Gyn
- Pediatrics
- Emergency Medicine
- Psychiatry
Basic Rotation Preparation

• Define the systems that are most prevalent for the specific rotation (ex Surgery= GI)

• Review and be able to apply the core content of the rotation specialty

• Review literature related to your rotation specialty
Defining your OMT goals

• Review components most relevant to the diseases of the rotation (ex OB/Gyn)
  – Autonomic (Pelvic Sphlanchnics, T12-L2)
  – Lymphatic (common iliac nodes → para-aortic nodes)
  – Musculoskeletal (Psoas, Obterator internus, Levator Ani etc)

• Be realistic in your goals as a medical student

• Identify 2 or 3 techniques to focus on for every 4 weeks of the rotation (ex Pulm = rib raising, cervical FPR, pedal pump)
OMT Rotation Preparation

• Review the anatomy and physiology of the most related systems of your rotation

• Review and PRACTICE your identified techniques for the month
Techniques for Most Occasions

- OA release
- Lymphatic techniques of the head
- Cervical FPR/Counterstrain
- Thoracic Muscle Energy
- Still Technique 1st Rib
- Rib Raising
- Psoas Counterstrain/ Muscle Energy
- Piriformis Counterstrain/ Muscle Energy
- Supine Sacral Rocking/Gapping
- Muscle Energy Innominate Dysfunction
Have a Crutch:
Pocket Manuals and Apps

ACOFP OMT
iPhone Application
THORACIC EXTENSION-FACILITATED POSITIONAL RELEASE

INDICATIONS: Thoracic extension somatic dysfunction associated with back pain, chest wall pain, and other problems.

RELATIVE CONTRAINDICATIONS: Acute fracture, shoulder dislocation.

TECHNIQUE (prone):
1. Place a pillow under the upper chest to decrease thoracic kyphosis if desired;
2. Have the patient turn the head toward the side of thoracic rotation;
3. Stand on the opposite side of thoracic rotation and palpate the paraspinal tension;
4. Slowly lift the shoulder on the side of thoracic rotation toward the paraspinal tension, adding compression or torsion until tension decreases;
5. Hold this position for 3–5 seconds until tension release is completed and slowly return the shoulder to the table;
6. Remove the pillow and retest thoracic rotation.

THORACIC FLEXION-FACILITATED POSITIONAL RELEASE

INDICATIONS: Thoracic flexion somatic dysfunction associated with back pain, chest wall pain, and other problems.

RELATIVE CONTRAINDICATIONS: Acute fracture.

TECHNIQUE (seated):
1. Standing behind the patient, reach over the shoulder on the side of thoracic rotation and across the upper chest to hold the top of the other shoulder;
2. Palpate the paraspinal tension and ask the patient to sit up straight to reduce thoracic kyphosis;
3. Slowly flex the trunk until motion is felt at the restricted segment;
4. Rotate the shoulders toward the side of thoracic rotation until tension decreases and add compressive force through your axilla causing sidebending at the level being monitored;
5. Hold this position for 3–5 seconds until tension release is completed and slowly return the trunk to neutral;
6. Retest thoracic rotation.
**Asthma**

**Basics**

**Description**
A disorder of the tracheobronchial tree characterized by mild to severe obstruction to airflow.

The clinical hallmark is wheezing, but cough may be the predominant symptom.

**Physiology and Associated Somatic Dysfunctions**

**Parasympathetics**
- Increased tone — increased volume of secretions and relative bronchiolar constriction
- Vagus nerve
  - Tender points
  - Tissue texture changes over cervical pillars
  - Rotated vertebrae
  - Compression of occipitoatlanto-axial joint

**Sympathetics**
- Increased tone — decreased secretions and bronchiolar dilation
- T1–T7
  - Tender points
  - Tissue texture changes over transverse processes
  - Rotated vertebrae

**Motor**
- C3–C5 (phrenic nerve to the diaphragm; dysfunction as a result of decreased excursion and overuse)
- Tender points
- Tissue texture changes over cervical pillars
- Rotated vertebrae

**Other Somatic Dysfunctions**
- Cranial extension dysfunction
- Scalenus—tender points and hyperesthesia
- Sternopectoral—tender points and hyperesthesia
- Inhalation or exhalation dysfunction of ribs
- Flattened diaphragm
- Thoracolumbar dysfunction (diaphragm attachment)

**Treatment**

2-Minute Treatment
- Thoracic—seated ME 739.2
- Abdominal/other/visceroamatic—Chapman’s reflex for lung 739.9

5-Minute Treatment
- Upper extremity—pectoralis minor: CS, MFR, and/or pectoralis traction (for lymphatic treatment) 739.7
- Thoracic—MFR 739.2

Extended Treatment
- Head—decreased CRI: CV/hold 739.0
- Head—vagus: OA release 739.0
- Head—sphenopalatine ganglion stimulation 739.0
- Cervical—C2, C3–C5: MFR, FPR, and/or HVL 739.0
- Cervical—scalenes: CS and/or MFR 739.1
- Thoracic—MFR 739.2
- Rib dysfunction—ME 739.8
- Rib raising 739.8
ACOFP OMT iPhone App

Anatomy

739.0 Head
739.1 Cervical
739.2 Thoracic
739.3 Lumbar
739.4 Sacrum
739.5 Pelvis
739.6 Lower Extremity
739.7 Upper Extremity

739.0 Head
Galbraith's dict
Traction on the Pinna
Pterygoid Fossa Decongestion, Sphenopalatine Ganglion dict
Jaw Lock Closed Lock Correction
Jaw Lock Open Lock Correction
Trigeminal Nerve dict of Bailey
Facial Effleurage
Submandibular Percussion
What are my obstacles?

1. My preceptors don’t do OMT

2. My preceptors don’t feel comfortable letting me do OMT because they don’t do it

3. I don’t know what to do or when to do it (See #1 and 2)

4. I’m worried if I bring up doing OMT or try to do it my grade will suffer (See #1 and 2)

http://www.fyvie.net/info_faq.html
My Preceptor: What are the odds?

- 26 osteopathic medical schools with 34 sites
- 18,143 osteopathic students enrolled in academic year 2009-10
- Over 64,000 DOs in the US
- ~1,500 are members of the AAO
- Less than 700 are Board Certified in NMM/OMM

What are the Reasons Preceptors Say for not DOing OMT?

- Like you
  
  “My preceptors didn’t do OMT “
  
  “My preceptors didn’t feel comfortable letting me do OMT because they didn’t do it”
  
  “I don’t know what to do or when to do it" **True**

- No time to do OMT **False**

- You can’t bill for OMT **False**

- There’s no evidence to support OMT **False**
What’s your response?

• Reassure them you will not be doing HVLA (Unless they’re comfortable with it)
• Show them pictures or videos of the techniques you would like to do
• Show them how to document and bill
• Show them references EBM for OMM
Your Response (cont’d)

• Potential benefits
  – Filling a distinct niche in the health care market place for more integrative medicine
  – Increase the base of potential physician researchers and educators
  – Increasing revenue without increasing overhead
• So How Do You Document and Bill?
  – Know the Why and the What
## ICD-9 Codes

### “9=Why”

<table>
<thead>
<tr>
<th>ICD9 Codes</th>
<th>Descriptors</th>
</tr>
</thead>
<tbody>
<tr>
<td>739.0</td>
<td>Head (Occipito-cervical)</td>
</tr>
<tr>
<td>739.1</td>
<td>Cervical (Cervical-thoracic)</td>
</tr>
<tr>
<td>739.2</td>
<td>Thoracic (Thoraco-lumbar)</td>
</tr>
<tr>
<td>739.3</td>
<td>Lumbar (Lumbo-sacral)</td>
</tr>
<tr>
<td>739.4</td>
<td>Sacrum</td>
</tr>
<tr>
<td>739.5</td>
<td>Pelvis (Hip Region)</td>
</tr>
<tr>
<td>739.6</td>
<td>Lower Extremities</td>
</tr>
<tr>
<td>739.7</td>
<td>Upper Extremities (Acromioclavicular and sternoclavicular regions)</td>
</tr>
<tr>
<td>739.8</td>
<td>Rib Cage</td>
</tr>
<tr>
<td>739.9</td>
<td>Abdomen/Other/Viscerosomatic</td>
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</table>

### Evaluation & Management Codes = What

<table>
<thead>
<tr>
<th>EM Code</th>
<th>Number of Regions Treated</th>
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<tbody>
<tr>
<td>98925</td>
<td>1-2 Body Regions</td>
</tr>
<tr>
<td>98926</td>
<td>3-4 Body Regions</td>
</tr>
<tr>
<td>98927</td>
<td>5-6 Body Regions</td>
</tr>
<tr>
<td>98928</td>
<td>7-8 Body Regions</td>
</tr>
<tr>
<td>98929</td>
<td>9-10 Body Regions</td>
</tr>
</tbody>
</table>

Current Procedural Terminology  
Gordy, K. Ed; American Medical Association, Chicago. P 450, 1999
Case Example

• 33 year old male presents with nasal congestion and green rhinorrhea for 1 week. The patient has a post nasal drip and morning non productive cough. The patient denies fevers, chills, NVD or HA. He has not tried any over the counter medications or other treatments. He denies sick contacts
How Do You Document?

Without OMM

- HEENT- NCAT, PERR, Clear canals, NL TM B/L, Nasal passages boggy with green rhinorrhea, post nasal drip in pharynx
- Lymphatics- No Adenopathy
- CV- RR, no murmurs, no ectopy
- Lungs- CTA B/L

With OMM

- HEENT- NCAT, PERR, Clear canals, NL TM B/L, Nasal passages with green rhinorrhea, post nasal drip in pharynx
- Lymphatics- No Adenopathy
- CV- RR, no murmurs, no ectopy
- Lungs- CTA B/L
- Biomechanical Exam-
  - Head- OA FSRRL, tenderness over maxillary sinuses with bogginess of facial soft tissue
  - Cervical- C2 RSR, C4-5 RSL
  - Thoracic- T4-7 RRSL
## How Do You Document Assessment and Plan?

<table>
<thead>
<tr>
<th>Without OMM</th>
<th>With OMM</th>
</tr>
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<tbody>
<tr>
<td><strong>1) Bacterial Sinusitis</strong></td>
<td><strong>1) Bacterial Sinusitis</strong></td>
</tr>
<tr>
<td>– amoxicillin/clavulanate 875 mg twice daily for 10-14 days</td>
<td>– amoxicillin/clavulanate 875 mg twice daily for 10-14 days</td>
</tr>
<tr>
<td><strong>2) SD of Head-</strong> CR, pt tolerated well</td>
<td><strong>2) SD of Head-</strong> CR, pt tolerated well</td>
</tr>
<tr>
<td><strong>3) SD of the Cervical-</strong> HVLA, pt tolerated well</td>
<td><strong>3) SD of the Cervical-</strong> HVLA, pt tolerated well</td>
</tr>
<tr>
<td><strong>4) SD of the Thoracic-</strong> ME, pt tolerated well</td>
<td><strong>4) SD of the Thoracic-</strong> ME, pt tolerated well</td>
</tr>
</tbody>
</table>
## How Do You Bill?

<table>
<thead>
<tr>
<th>Without OMM</th>
<th>With OMM</th>
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</thead>
<tbody>
<tr>
<td>1) Bacterial Sinusitis- 461.9</td>
<td>1) Bacterial Sinusitis- 461.9</td>
</tr>
<tr>
<td></td>
<td>2) Somatic Dysfunction of Head 739.0</td>
</tr>
<tr>
<td></td>
<td>3) Somatic Dysfunction of the Cervical 739.1</td>
</tr>
<tr>
<td></td>
<td>4) Somatic Dysfunction of the Thoracics 739.2</td>
</tr>
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</table>
## FYI-Comparison of Reimbursement

<table>
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<tr>
<th></th>
<th>Without OMM</th>
<th>With OMM</th>
</tr>
</thead>
<tbody>
<tr>
<td>99213-</td>
<td>$54.00</td>
<td>99213.25-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>99826 (3-4 regions) $42.95</td>
</tr>
<tr>
<td>Total Billable</td>
<td>$54.00</td>
<td>Total Billable</td>
</tr>
<tr>
<td>Charges</td>
<td></td>
<td>Charges</td>
</tr>
</tbody>
</table>

*Addt’l Time: 51 seconds*
Financial Benefits

- Medicare Reimbursements
  - 1-2 regions 98925 $32.27
  - 3-4 regions 98926 $42.95
  - 5-6 regions 98927 $55.82
  - 7-8 regions 98928 $65.09
  - 9-10 regions 98929 $75.12

$32 \times 4\text{pts/day} \times 5\text{days/week} \times 46\text{ wks} = $29,440 billable charges annually per physician
• What OMM Research Can I Reference?
EBM Musculoskeletal


- John C. Licciardone, DO,* Scott T. Stoll, DO,† Kimberly G. Fulda, MPH, David P. Russo, DO,‡ Jeff Siu, BA,† William Winn, DO,§ and Jon Swift Jr, DO Osteopathic Manipulative Treatment for Chronic Low Back Pain A Randomized Controlled Trial SPINE Volume 28, Number 13, pp 1355–1362

- RUSSELL G. GAMBER, DO; JAY H. SHORES, PHD; DAVID P. RUSSO, BA; CYNTHIA JIMENEZ, RN; BENARD R. RUBIN, DO Osteopathic manipulative treatment in conjunction with medication relieves pain associated with fibromyalgia syndrome: Results of a randomized clinical pilot project J AOA • Vol 102 • No 6 • June 2002

- JANICE A. KNEBL, DO, MBA; JAY H. SHORES, PHD; RUSSELL G. GAMBER, DO; WILLIAM T. GRAY, DO; KATHRYN M. HERRON, MPH Improving functional ability in the elderly via the Spencer technique, an osteopathic manipulative treatment: A randomized, controlled trial JAOA • Vol 102 • No 7 • July 2002
EBM for OMT in Pulmonary and Infectious Disease

• Donald R. Noll, DO; Brian F. Degenhardt, DO; Christian Fossum, DO (Norway); and Kendi Hensel, DO Clinical and Research Protocol for Osteopathic Manipulative Treatment of Elderly Patients With Pneumonia JAOA • Vol 108 • No 9 • September 2008

• Peter A. Guiney, DO; Rick Chou, DO; Andrea Vianna, MD; Jay Lovenheim, DO Effects of Osteopathic Manipulative Treatment on Pediatric Patients With Asthma: A Randomized Controlled Trial JAOA • Vol 105 • No 1 • January 2005

• Brian F. Degenhardt, DO, Michael L. Kuchera, DO Osteopathic Evaluation and Manipulative Treatment in Reducing the Morbidity of Otitis Media: A Pilot Study JAOA • Vol 106 • No 6 • June 2006
EBM for OMT in Cardiology

- Albert H. O-Yurvati, DO; Michael S. Carnes, DO; Michael B. Clearfield, DO; Scott T. Stoll, DO, PhD; and Walter J. McConathy, PhD Hemodynamic Effects of Osteopathic Manipulative Treatment Immediately After Coronary Artery Bypass Graft Surgery JAOA • Vol 105 • No 10 • October 2005

- Patricia A. Gwirtz, Jerry Dickey, David Vick, Maurice A. Williams, and Brian Foresman Viscerosomatic interaction induced by myocardial ischemia in conscious dogs J Appl Physiol 103: 511–517, 2007.

- E. Marty Knott, OMS V; Johnathan D. Tune, PhD; Scott T. Stoll, DO, PhD; and H. Fred Downey, PhD Increased Lymphatic Flow in the Thoracic Duct During Manipulative Intervention JAOA • Vol 105 • No 10 • October 2005
EBM for OMT in OB-Gyn/Urology

- John C. Licciardone, DO, MS, MBA; Steve Buchanan, DO; Kendi L. Hensel, DO, PhD; Hollis H. King, DO, PhD; Kimberly G. Fulda, DrPH; Scott T. Stoll, DO, PhD
  Osteopathic manipulative treatment of back pain and related symptoms during pregnancy: a randomized controlled trial JANUARY 2010 American Journal of Obstetrics & Gynecology


EBM for OMT in Surgical Patients


- Frederick J. Goldstein; Saul Jeck; Alexander S. Nicholas; Marvin J. Berman; and Marilyn Lerario Preoperative Intravenous Morphine Sulfate With Postoperative Osteopathic Manipulative Treatment Reduces Patient Analgesic Use After Total Abdominal Hysterectomy J Am Osteopath Assoc, Jun 2005; 105: 273 - 279.
• What Do I Make of These References?
Sackett Levels of Evidence

- **Grade A**
  - (1) Systematic reviews of randomized controlled trials (RCTs)
  - (1b) Individual RCTs with narrow confidence interval

- **Grade B**
  - (2) Systematic reviews of cohort studies
  - (2b) Individual cohort studies and low-quality RCTs

- **Grade C**
  - (3) Systematic reviews of case-control studies
  - (3b) Case-controlled studies
  - (4) Case series and poor-quality cohort and case-control studies
  - (5) Expert opinion

Sackett DL. Rules of evidence and clinical recommendations on use of antithrombotic agents. Chest 1986 Feb; 89 (2 suppl.):2S-3S.
### Strength of Recommendation Taxonomy (SORT)

<table>
<thead>
<tr>
<th>Strength of recomm.</th>
<th>Basis for recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Consistent, good-quality patient-oriented evidence</td>
</tr>
<tr>
<td>B</td>
<td>Inconsistent or limited-quality patient-oriented evidence</td>
</tr>
<tr>
<td>C</td>
<td>Consensus, disease-oriented evidence, usual practice, expert opinion, or case series for studies of diagnosis, treatment, prevention, or screening</td>
</tr>
</tbody>
</table>

**Strength of Recommendation Based on a Body of Evidence**

- **Is this a key recommendation for clinicians regarding diagnosis or treatment that merits a label?**
  - No → **Strength of Recommendation not needed**
  - Yes

- **Is the recommendation based on patient-oriented evidence (i.e., an improvement in morbidity, mortality, symptoms, quality of life, or cost)?**
  - No → **Strength of Recommendation = C**
  - Yes

- **Is the recommendation based on opinion, bench research, a consensus guideline, usual practice, clinical experience, or a case series study?**
  - Yes → **Strength of Recommendation = C**
  - No

- **Is the recommendation based on one of the following?**
  - Cochrane Review with a clear recommendation
  - USPSTF Grade A recommendation
  - Clinical Evidence rating of Beneficial
  - Consistent findings from at least two good-quality randomized controlled trials or a systematic review/meta-analysis of same
  - Validated clinical decision rule in a relevant population
  - Consistent findings from at least two good-quality diagnostic cohort studies or systematic review/meta-analysis of same
  - No → **Strength of Recommendation = B**
  - Yes → **Strength of Recommendation = A**

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**Figure 1. Assigning a Strength-of-Recommendation grade based on a body of evidence. (USPSTF = U.S. Preventive Services Task Force)**

Who are your allies?

- Academic Affairs
- National/Regional Membership Organizations
  - AOA, AAO, ACOFP, NJAOPS, POMA, TOMA
- Your alumnae association
What else should I be doing?

- Attending convocation!
- Scheduling Electives with Musculoskeletal Specialties (Physiatry, Sports Medicine)
- Taking as many OMM courses as possible
  - Basic Cranial Course
  - AAO, Cranial Academy, SCTF, local study groups
What else should I be doing?

- Expanding your library
  - Thieme- General Anatomy and Musculoskeletal System
  - Anatomy Trains
  - Biomechanical Basis of Human Movement
  - Evidence Based Manual Medicine
- Finding Mentors
Summary

• Create a short list of techniques to practice for each rotation and practice them all rotation long
• Be integrative, not exclusive
• Regularly schedule courses or rotations where you will get additional training
Thank You 😊