

Edward Via College of Osteopathic Medicine

MED 8121/MED 8122

Clinical Integration of Osteopathic Manipulative Medicine I and II
Academic Year 2023 – 2024

COURSE SYLLABUS



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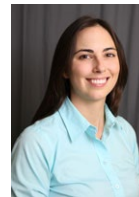
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I. Course Description

Osteopathic Manipulative Medicine (OMM) is taught throughout the curriculum by faculty physicians who practice primary care and osteopathic medicine and sports medicine. The OMM curriculum is reinforced in the clinical years by providing clinical experiences with VCOM appointed clinical faculty, demonstrating the incorporation of the manipulative medicine skills of diagnosis and treatment into clinical practice.

Osteopathic manipulative medicine skills are integrated within the various clinical rotations and OMM skills are utilized in some of the clinical experiences, taught through clinically integrated case-based studies, and taught through workshops in the third year.

The OMM curriculum is directed toward the development of an osteopathic primary care physician. VCOM faculty believe that whether students choose primary care or a medical specialty, they will benefit from a broad-based primary care curriculum and a whole patient approach to care. OMM is an important skill for the primary care physician and is therefore taught throughout the pre-clinical and clinical years.

The OMS 3 year marks the transition from the classroom setting to clinical rotations. The OMM curriculum is integrated into the OMS-3 year to ensure that students continue to learn and practice Osteopathic Principles as well as to demonstrate how to incorporate these principles into the appropriate care of patients in the clinical setting. Curriculum integration occurs through both didactic and practical curricular components.

II. Course Goals and Objectives

A. Goals of the Course

The student should demonstrate the following skills in regard to osteopathic manipulative medicine.

1. Perform and document a thorough musculoskeletal exam
2. Utilize palpatory skills to accurately discern physical changes that occur with various clinical disorders
3. Apply osteopathic manipulative medicine successfully when appropriate
4. Apply osteopathic manipulative treatments successfully

III. Course Design

An important component of student medical education during the OMS 3 year involves OMM principles and techniques learned in the OMM lecture and laboratory settings in the OMS 1 and 2 years being expanded upon and applied to patients encountered in the clinical setting. This occurs with the precepting physician and via didactic assignments during the OMS 3 year aimed to aid the student in more fully integrating OPP and OMM into the clinical assessment and management aspects of patient care.

A. OMM Clinical Case-Based Studies

One component of the OMS 3 Clinical Integration of Osteopathic Medicine course is the case-based curriculum consisting of 4 OMM case videos and PowerPoint presentations per semester (10 total for the academic year) that are specifically linked to the OMM workshops. These clinical case videos and any supplemental readings and/or videos assigned at the time of posting are specific to the third year OMM course and are in addition to the core rotation readings. These videos and PowerPoints are created by the on-campus faculty and posted to VCOM-TV during the course of the OMS 3 year. These materials will be posted at the start of each rotation and must be viewed prior to the hands-on workshop. See below the OMM Case Study Schedule for the fall and spring semester of the academic year. The topics and objectives for these Case-Based Studies are to be the same at all clinical sites and VCOM campuses.

The core syllabi for each clinical rotation also includes specific OMM objectives and required reading assignments. The student is responsible for both the core rotation readings as well as the OMM clinically integrated PowerPoint, OMM VCOM-TV videos, and OMM supplemental readings assigned.

The PowerPoint/VCOM-TV videos will coincide with patient populations and clinical conditions commonly encountered during clinical practice and the core clinical disciplines. Students should supplement their learning of the subject matter by reviewing the OMM PowerPoints, as well as any supplemental readings. Students are tested to assure their understanding of the core OMM concepts from the PowerPoints, VCOM-TV videos, and other materials assigned for each individual case-based study.

In addition to the written OMM quizzes and OMM Case-based Studies, students will participate in a Comprehensive Osteopathic Medical Performance Exam (COMPE) during their OMS 3 year, an assessment tool for judging competency in a patient encounter requiring an interview, examination, assessment, and plan for a variety of complaints encountered as an osteopathic physician. The COMPE is not a component of the Clinically Integrated OMM course grade. However, competency in OMM/OMT must be demonstrated during the COMPE in order to matriculate to the fourth year.

Any student on an alternate schedule will be responsible for reaching out to the OMM Discipline Chair at their campus to come up with an appropriate plan to meet their OMM OMS-3 requirements.

B. OMM Hands-on Workshops

The other component of the OMS 3 Clinical Integration of Osteopathic Medicine course occurs in the form of 5 monthly OMM workshops in the fall semester and 5 monthly OMM workshops in the spring semester, provided by each clinical site, during the course of the OMS 3 year. The date and time of these workshops will be site dependent and based on factors such as facility and preceptor availability. The topics and objectives for these workshops are to be the same at all clinical sites and VCOM campuses and will correspond to the topics as outlined in the Case-Based Study schedule. Students must attend the OMM workshop at their core site and are not permitted to attend OMM workshops at other clinical sites.

In the event that a clinical site cannot provide an OMM workshop, the students at that site will attend the on-campus monthly OMM workshop. The Associate Dean for Clinical Affairs will inform students who need to attend on-campus workshops. The schedule for the on-campus workshops will be provided to these students.

If a student is in quarantine due to illness/exposure at the time of the OMM workshop, preventing them from attending live, they must notify the Associate Dean for Clinical Affairs and the Chair for OMM. The Associate Dean and Chair may then permit the student to virtually attend the on-campus OMM Workshop via Zoom.

- If the student on quarantine has an OMS-3 VCOM roommate(s) who is also in quarantine, both will attend the on-campus OMM Workshop virtually and will perform hands-on OMM together and will demonstrate competency of the techniques to faculty via Zoom. No more than 3 students per group.
- If the student on quarantine does not have another OMS-3 student in quarantine with them, that student will be required to demonstrate competency of that month's techniques at the next month's OMM workshop that they attend.

C. Logging Patient Encounters, Procedures and Workshops

Students are required to maintain a log to identify the procedures performed and the number of essential patient encounters in the VLMS application. Students are also required to document all OMM workshops and Case-Based Studies they have attended and log that information into the VLMS application as well. All students must review these logs with their preceptors prior to the end of the rotation period, as required by the final preceptor evaluation form. Students are encouraged to periodically review their VLMS entries with their preceptor during the rotation period.

IV. Credits

8121 – 1 Credit Hour

8122 – 1 Credit Hour

V. Course Texts

A. Required Textbooks and Readings

- Seffinger, Michael. *Foundations of Osteopathic Medicine* (4th ed.). Philadelphia, PA: Wolters Kluwer Health, 2019. ISBN: 978-1496368324 (retail price \$139.99) – Available in VCOM's eLibrary in LWW Osteopathic Medicine Collection
- Nicholas, A.S., & Nicholas, E.A. (2016). *Atlas of Osteopathic Techniques* (3rd ed.). Baltimore, MD: Lippincott Williams & Wilkins, 2015. ISBN: 978-1451193411 (retail price \$165.99) – Available in VCOM's eLibrary in LWW Osteopathic Medicine Collection
- Additional readings may be assigned specific to each OMM Case Based Study or OMM workshop.

VI. Course Requirements for Successful Completion

- Attendance of all OMM Workshops.
 - Completion of all Case-Based Studies in the required curriculum.
 - Logging OMM Patient Encounters, Procedures, Case-Based Studies, and Workshops in VLMS:
 - Students are required to log all OMM patient encounters and procedures into the VLMS application during the core clinical rotation for the period, in which the student performed an osteopathic structural exam/assessment and/or performed OMT. Students are also required to document all OMM Case-Based Studies and OMM workshops they have attended and log that information into the VLMS application as well. All students must review these logs with their preceptors prior to the end of the rotation period, as required by the final preceptor evaluation form. Students are encouraged to periodically review their VLMS entries with their preceptor during the rotation period. These reviews should stimulate discussions about cases and learning objectives, as well as identify curriculum areas the student may still need to complete. VLMS can be accessed at: <https://clinicalems.com>
- VLMS logs are due no later than 5 PM on the day of your end of rotation exam.**
- Successful completion and passage of the end-of-period quizzes.

VII. Course Grading

A. Quizzes

Students are tested to assure their understanding of the core OMM concepts from the PowerPoints and other Case-Based/Workshop materials assigned for each individual workshop.

- Each end-of-rotation OMM quiz will include 10 questions specific to the materials provided for the Case-Based Study/Workshop.
- At the conclusion of the OMM fall semester for OMS 3, students will have completed a total of 5 case-based studies/hands-on-workshops and 4 OMM quizzes. The 4 quizzes combined will total 100 points. The total points earned out of 100 will be calculated into a final grade for the fall Clinical Integration of Osteopathic Manipulative Medicine course, which will appear on the transcript as OMS 3 Clinical Integration of Osteopathic Manipulative Medicine I.
- At the conclusion of the OMM spring semester for OMS 3, students will have completed a total of 4 case-based studies/hands-on-workshops. The 4 quizzes combined will total 100 points. The total points out of 100 will be calculated into a final grade for the spring OMS 3 Clinical Integration course, which will appear on the transcript as OMS 3 Clinical Integration of Osteopathic Manipulative Medicine II.
- The quiz will be taken at the same time and place as the end-of-rotation exams for the core rotations.
- Students must pass each end-of-period OMM quiz with a C (70%) or better to receive a passing grade on that quiz.
- Students must score a C (70%) or better on the final grade, which is made up of the cumulative scores of all 4 quizzes, to pass the course. If the student scores less than 70% on the final grade,

an “F” will be recorded for the final grade and the student will be brought before the Promotion Board.

B. Workshop Attendance

OMM Workshop attendance will be recorded as Pass/Fail. OMM workshop attendance is mandatory for all third-year students on clinical rotations unless an excused absence is obtained. Any OMS 3 student who misses a monthly OMM hands-on workshop will be required to make the contact hours up as deemed appropriate by the Discipline Chair. Failure to attend/make-up an OMM workshop prior to the OMS 4 year will result in an “F” grade for the course and the student will be brought before the Promotion Board.

Semester	Period	Clinical Case-Based Studies/Workshop and Quiz	Contribution of Each to Final Grade
Fall Semester			
	Period 2	Workshop 1 – Family Medicine No Quiz	
	Period 3	Workshop 2 – Primary Care Quiz 1 on workshop 1 (FM) material	25%
	Period 4	Workshop 3 - Geriatrics Quiz 2 on workshop 2 (Primary Care) material	25%
	Period 5	Workshop 4 – Internal Medicine I Quiz 3 on workshop 3 (Geriatrics) material	25%
	Period 6	Workshop 5 – Internal Medicine II Quiz 4 on workshop 4 (IM I) material	25%
Spring Semester			
	Period 7	Workshop 1 – Obstetrics and Gynecology No Quiz	
	Period 8	Workshop 2 - Pediatrics Quiz 1 on workshop 1 (Ob/Gyn) material	25%
	Period 9	Workshop 3 - Psychiatry Quiz 2 on workshop 2 (Pediatrics) material	25%
	Period 10	Workshop 4 - Surgery Quiz 3 on workshop 3 (Psychiatry) material	25%
	Period 11	Workshop 5 – Billing, Coding, & Technique Review Quiz 4 on workshop 4 (Surgery) material	25%

I. Grading Scale

Clinical Grading Scale and GPAs						
OMS 3 End-of-Rotation Exam Grades			OMS 3 AND OMS 4 Clinical Rotation Grades		Other Grades	
A	90-100	4.0	H	Honors	IP	In Progress
B+	85-89	3.5	HP	High Pass	INC	Incomplete
B	80-84	3.0	P	Pass	CP	Conditional Pass
C+	75-79	2.5	F	Fail	R	Repeat
C	70-74	2.0			Au	Audit
F	<70	0.0				

II. Remediation

- **Failure of an End-of-Period OMM Quiz**

Students must pass each end-of-period OMM quiz with a C (70%) or better to receive a passing grade. Students who fail an end-of-period OMM quiz will be required to remediate the quiz. To remediate, the student will write up a case as directed below. The case must be turned in no later than 10 AM on the Friday of the following week. Any late submissions will result in a failing grade being recorded for the quiz remediation. Cases should be emailed to both the campus OMM Discipline Chair and the campus OMM Administrative Assistant/Education Specialist. The remediated quiz grade will be recorded as the higher of the two grades, not to exceed 70%.

Cases: The student shall pick one case option from the list sent to them at the time of notification of their failure. They will create a list of at least 10 anticipated somatic dysfunctions based on the case and document why they think each dysfunction would be present. They must then write how they would treat the dysfunction, using appropriate techniques based on the case.

Failure to pass the remediation in the required timeframe will result in the student's original quiz grade minus 10% being recorded officially as the student's quiz grade.

Any student who has failed more than 2 quizzes during a semester will be required to have a phone interview with the Discipline Chair and the student may be brought before the Promotion Board.

- **Failure of the Course**

If a student fails the course the student will receive an "F" grade for the course and will be brought before the Promotion Board.

III. **Academic Expectations**

Grading policies, academic progress, and graduation requirements may be found in the [College Catalog and Student Handbook](#).

A. **Attendance**

OMM workshop attendance is mandatory for all third-year students on clinical rotations. If a student has an excused absence and must miss an OMM workshop, they will be responsible for the material of the workshop and making up an equivalent amount of time as approved by the OMM Discipline Chair. This make-up is required to be completed prior to promotion to the OMS 4 year.

OMS 3 students who miss the required workshops without an excused absence may be called to the Promotion Board, as is consistent with the policy for any unexcused absence on clinical rotations.

Any student on an alternate schedule will be responsible for reaching out to the OMM Discipline Chair at their campus to come up with an appropriate plan to meet their OMM workshop requirements.

The Office of Clinical Affairs requires that the medical student complete and submit an Excused Absence Clinical Rotations Approval form for any workshop missed. Forms are available at: www.vcom.edu/academics/clinical-forms. The Office of Clinical Affairs requires that the medical student complete and submit this form for any OMM Workshop missed. The student must have this form signed by their preceptor and others designated on the form to obtain an excused absence and must be provided to the DSME and the Office of Clinical Affairs through the site coordinator. The form must be completed prior to the beginning of the leave. If an emergency does not allow the student to submit this prior to the absence, the "Excused Absence Clinical Rotations Approval" form must be submitted as soon as the student is physically able to complete the form. In addition to completion of the form, students must contact the Department of Clinical Affairs, the Site Coordinator, and the preceptor's office by 8:30 AM of the day they will be absent due to an illness or emergency. No

excused absence will be granted after the fact, except in emergencies as verified by the Associate Dean for Clinical Affairs.

Students who have repeated requests for excused absences on OMM Workshop days are required to meet with the Associate Dean for Clinical Affairs. If a student is believed to be abusing the excused absence policy, they may be evaluated for an Honor Code violation. Students with unexcused absences for OMM Workshops will be brought before the Honor Code Council.

Students are expected to arrive on time to all OMM Workshops. If a student is late, they must notify the site coordinator and the preceptor prior to or at the time they are scheduled arrive. Students must have a reason for being late such as illness or vehicle issues and it is not anticipated that this would occur more than one occasion AND it is important the student call in prior to being late. Repeated tardiness is considered as unprofessional behavior and is a reason for dismissal from a rotation. Students with repeated tardiness will be referred to the Honor Code Council. Tardiness is defined as more than 5 minutes after the scheduled time the preceptor designates as the expected arrival time.

B. Prohibited Use of External Accelerators

At times, there may be lectures on VCOMTV where completion will be documented as part of passing the course (these will be clearly indicated in the course syllabus). For these lectures, the use of an external accelerator is prohibited, as VCOMTV is unable to track completion through these programs. If a student uses an external accelerator for these assignments, they will be required to re-watch the lecture(s) in VCOMTV within the required timeline. Failure to document a student's completion of these assignments within the required timeline due to use of an external accelerator may result in failure of the course.

IV. Professionalism and Ethics

It is advised that students review and adhere to all behavioral policies including attendance, plagiarism, dress code, and other aspects of professionalism. Behavioral policies may be found in the [College Catalog and Student Handbook](#).

A. VCOM Honor Code

The VCOM Honor Code is based on the fundamental belief that every student is worthy of trust and that trusting a student is an integral component in making them worthy of trust. Consistent with honor code policy, by beginning this exam, I certify that I have neither given nor received any unauthorized assistance on this assignment, where "unauthorized assistance" is as defined by the Honor Code Committee. By beginning and submitting this exam, I am confirming adherence to the VCOM Honor Code. A full description of the VCOM Honor Code can be found in the [College Catalog and Student Handbook](#).

V. Syllabus and Rotation Schedule

Please use this syllabus as a guide, paying particular attention to the learning objectives as an outline of what you are expected to know for each topic/module. Refer to the rotation calendar for specific dates of exams.

The faculty of the course will make every effort to adhere to the syllabus and rotation schedule; however, the Office of Clinical Affairs reserves the right to make changes to the syllabus; including changes to examinations, quizzes, modules, homework or other assignments; and/or the schedule with as much advance notice as possible. These changes will be communicated to the students in writing via Canvas or email.

VI. OMM Clinically Integrated Cases/Workshops Fall Semester

1. Workshop 1: Family Medicine

A. Acute Neck Pain

Reading Assignment: Readings may be assigned specific to each OMM workshop at the time of the workshop.

Learning Objectives:

- i. Recognize the structure-function approach to differential diagnosis of acute neck pain and identify potential neck pain generators.
- ii. Identify approaches that integrate the entire postural mechanism within the biomechanical model considered for a patient complaining of acute neck pain.
- iii. Identify approaches that integrate the respiratory/circulatory model in the evaluation and treatment of acute neck pain.
- iv. Describe the manifestations of the neurological model in the evaluation and treatment of facilitation resulting from acute neck pain.
- v. Recognize the metabolic and physiologic alterations that occur with acute neck pain using the metabolic energy model.
- vi. Identify approaches that integrate the psychological, behavioral, and social responses to acute neck pain and somatic dysfunction using the behavioral model.
- vii. Discuss the indications for referral to a spine or pain specialist for further evaluation and management of acute neck pain.
- viii. Recognize and identify an appropriate use of OMT in acute neck pain.
- ix. Identify methods to incorporate holistic care in the management of the patient with neck pain.

B. Acute Low Back Pain

Reading Assignment: Readings may be assigned specific to each OMM workshop at the time of the workshop.

Learning Objectives:

- i. Summarize the AOA recommended parameters for frequency of the application of OMM for patients with acute low back pain.
- ii. Define acute, subacute and chronic low back pain.
- iii. Discuss the indications for obtaining radiological evaluation in patients with low back pain based on the American College of Physicians and the American Pain Society.
- iv. Differentiate between mechanical and non-mechanical etiologies of acute low back pain, and how their diagnostic evaluation may differ.
- v. In patients presenting with low back pain symptoms, differentiate possible mechanical etiologies including psoas, piriformis, and sacroiliac joint pain.
- vi. Summarize the various considerations for treatment of acute low back pain, specifically related to biomechanical, respiratory-circulation, metabolic-energy, neurologic, and behavioral models.
- vii. Identify self-care recommendations that may be provided to a patient with low back pain.
- viii. Discuss the function of the anterior and posterior muscles of the lumbar spine, including the different layers of the posterior musculature (ie superficial, intermediate and deep layers).
- ix. Recognize and identify an appropriate use of OMT in acute low back pain.
- x. Identify methods to incorporate holistic care in the management of the patient with low back pain.
- xi. Demonstrate proficiency in the evaluation and appropriate direct and/or indirect osteopathic treatment for somatic dysfunctions of the neck and low back.
- xii. Osteopathic techniques reviewed in lab may include any of the following techniques
 - a. Direct Techniques

- 1) Direct MFR to suboccipital m.
 - 2) Soft Tissue to cervical paraspinal m.
 - 3) ME to cervical vertebrae
 - 4) HVLA to cervical vertebrae
 - 5) ME Psoas
 - 6) Soft Tissue to lumbar paraspinal m.
 - 7) MFR to lumbar paraspinal
 - 8) ME to lumbar
 - 9) HVLA to lumbar
 - 10) Visceroabdominal ganglion technique
- b. Indirect Techniques
- 1) Counterstrain to cervical area

2. Workshop 2: Primary Care: Rural and Medically Underserved Populations

A. Upper Gastrointestinal Disorders

Reading Assignment: Readings may be assigned specific to each OMM workshop at the time of the workshop.

Learning Objectives:

- i. Recognize the pathophysiology of a viscerosomatic reflex of the GI tract.
- ii. Understand the role of viscerosomatic reflexes in typical GI pain patterns.
- iii. Understand the sympathetic innervation to the GI tract and its role in GI pathophysiology.
- iv. Understand the parasympathetic innervation to the GI tract and its role in GI pathophysiology.
- v. Identify lymphatic dysfunctions associated with upper GI pathophysiology.
- vi. Discern the use of lymphatic manipulative techniques in the treatment of upper GI dysfunctions.
- vii. Identify the diagnostic and therapeutic use of Chapman's Reflex Points for upper GI pathophysiology.
- viii. Recognize the appropriate use of OMT in improving sympathetic and parasympathetic innervation to the upper GI tract.
- ix. Identify methods to incorporate holistic care in the management of a patient with Upper GI disorders
- x. Demonstrate proficiency in the evaluation and appropriate direct and/or indirect osteopathic treatment for somatic dysfunctions commonly found in the patient with upper GI dysfunctions
- xi. Osteopathic techniques reviewed in lab may include any of the following techniques
 - a. Direct Techniques
 - 1) Myofascial Release to Suboccipital Area
 - 2) Muscle Energy to OA/AA
 - 3) Myofascial Release to Thoracic Inlet
 - 4) Myofascial Release to Abdominal Diaphragm
 - 5) Rib Raising
 - 6) Chapmans Reflex Points-Evaluate
 - 7) Abdominal Collateral Ganglion-Evaluate
 - b. Indirect Techniques
 - 1) Thoracic Counterstrain-AT7-AT12
 - 2) Myofascial Release to Thoracic Inlet
 - 3) Myofascial Release to Abdominal Diaphragm

3. Workshop 3: Geriatrics

A. Arthritic Disorders

Reading Assignment: Readings may be assigned specific to each OMM workshop at the time of the workshop.

Learning Objectives:

- i Discuss how Osteopathic principles contribute to the diagnosis and treatment of arthritic conditions
- ii Briefly describe the goals of Osteopathic Manipulative Medicine (OMM) in the treatment of arthritis
- iii Distinguish between pathophysiology of rheumatoid arthritis, osteoarthritis, and gouty arthropathy
- iv Describe the clinical and diagnostic features of rheumatoid arthritis, osteoarthritis, and gouty arthropathy
- v Describe the facilitated segments model for pain and spinal cord levels involved in upper and lower extremity arthritic conditions
- vi Identify pertinent indications and contraindications for OMM in arthritic patients
- vii Identify OMM treatment approaches to the care of patients with rheumatoid arthritis, osteoarthritis, and gouty arthropathy
- viii Identify methods to incorporate holistic care in the management of a patient with arthritis
- ix Discuss the rationale for lymphatic treatments in arthritic patients
- x Discuss the rationale for cranial treatments in arthritic patients
- xi Identify methods to incorporate holistic care in the management of the geriatric patient

B. Constipation in the Elderly

Reading Assignment: Readings may be assigned specific to each OMM workshop at the time of the workshop.

Learning Objectives:

- i. Define constipation and its burden in the elderly.
- ii. List common risk factors for constipation including medical, mechanical, and structural factors.
- iii. List red flags indicating a more serious diagnosis in constipated patients.
- iv. Describe the pathophysiology of impaction and diarrhea in constipation.
- v. Discuss the roles of spinal cord facilitation, motility, and somatic dysfunctions in constipation.
- vi. Identify the proper steps in working up constipation.
- vii. Define the role of diet and activity in constipation.
 - a. Define dehydration.
 - b. Identify the steps in cyclical laxative abuse.
- viii. List the various treatment options for constipation.
- ix. Describe the goals of Osteopathic Manipulative Medicine (OMM) in the treatment of constipation.
- x. Discuss OMM treatment approaches to the care of patients with constipation.
- xi. Demonstrate proficiency in the evaluation and appropriate direct and/or indirect osteopathic treatment for somatic dysfunctions found commonly in the geriatric patient
- xii. Osteopathic techniques reviewed in lab may include any of the following techniques
 - a. Direct Techniques
 - 1) Rib Raising
 - 2) Suboccipital release
 - 3) Spencer's technique
 - 4) Mesenteric Lift
 - 5) Colonic milking
 - 6) Abdominal pump

- 7) Pedal pump
- b. Indirect Techniques
 - 1) BLT small joints
 - 2) CV4
- c. Combined Techniques
 - 1) Combined ME for the hip
 - 2) Combined MFR knee

4. Workshop 4: Internal Medicine I

A. Lower Respiratory Infections

Reading Assignment: Readings may be assigned specific to each OMM workshop at the time of the workshop.

Learning Objectives:

- i. Identify the structural areas which may play a role in Vagal nerve facilitation
- ii. Identify the common rib dysfunctions found as a result of paroxysmal coughing
- iii. Describe the pulmonary effects of increased parasympathetic tone
- iv. Describe the pulmonary effects of increased acute/chronic sympathetic activation
- v. Identify the spinal segments most likely to become facilitated with lung dysfunction
- vi. Identify the anterior Chapman's points for lung dysfunction
- vii. Identify how the biomechanical, respiratory, neurological, metabolic and behavioral models describe contributions to the development of symptomatic disease and address treatment for each component.
- viii. Recognize and identify an appropriate OMT treatment plan in a patient with lower respiratory disease
- ix. Identify methods to incorporate holistic care in the management of a patient with lower respiratory disorders
- x. Demonstrate proficiency in the evaluation and appropriate direct and/or indirect osteopathic treatment for somatic dysfunctions found commonly in the patient with lower respiratory disorders
- xi. Osteopathic techniques reviewed in lab may include any of the following techniques
 - a. Direct Techniques
 - 1) LVMA Rib Raising-supine and seated
 - 2) ME Ribs -seated and supine
 - 3) Direct and indirect MFR Diaphragm
 - 4) Direct MFR-Arcuate ligaments
 - 5) Thoracic PUMP

5. Workshop 5: Internal Medicine II

A. Cardiovascular Disease

Reading Assignment: Readings may be assigned specific to each OMM workshop at the time of the workshop.

Learning Objectives:

- i. Outline the impact and effects of the autonomic nervous system on the function of the cardiovascular system and describe the levels for the parasympathetic and sympathetic contributions.
- ii. Describe the important impact and effects of the lymphatic system on the function of the cardiovascular system.
- iii. Relate somatic changes of the thoracic spine to effects in cardiovascular system.
- iv. Describe key OMM treatment approaches utilized in the care of patients with hypertension and specifically how treatments might affect sympathetic and parasympathetic tone as well as lymphatic return.

- v. Describe key OMM treatment approaches utilized in the care of patients with congestive heart failure and specifically how treatments may affect sympathetic and parasympathetic tone as well as lymphatic return.
- vi. Identify OMM treatment approaches to the care of patients with atherosclerosis, cardiac arrhythmias and myocardial infarctions.
- vii. Relate specifically how treatments might affect sympathetic and parasympathetic tone as well as lymphatic return.
- viii. Identify wellness concepts such as diet, exercise, stress reduction and smoking cessation as components of a comprehensive treatment program for cardiovascular disease.
- ix. Identify how the biomechanical, respiratory, neurological, metabolic and behavioral models describe contributions to the development of symptomatic disease and address treatment for each component.
- x. Identify methods to incorporate holistic care in the management of the patient with cardiovascular disease
- xi. Demonstrate proficiency in the evaluation and appropriate direct and/or indirect osteopathic treatment for somatic dysfunctions found typically in the patient cardiovascular disease
- xii. Osteopathic techniques reviewed in lab may include any of the following techniques
 - a. Direct Techniques
 - 1) Inhibition suboccipital m.
 - 2) ME OA-oculocephalogyric reflex
 - 3) ME cervicals
 - 4) ME thoracics
 - b. Indirect Techniques
 - 1) FPR cervical
 - 2) FPR thoracics
 - 3) FPR first rib

VII. OMM Clinically Integrated Cases/Workshops Spring Semester

1. Workshop 1: Obstetrics and Gynecology

A. Osteopathic Considerations in Normal Pregnancy/Low Back Pain in Pregnancy/Lower Extremity Swelling in Pregnancy

Reading Assignment: Readings may be assigned specific to each OMM workshop at the time of the workshop.

Learning Objectives:

- i. Identify the 2 most common complaints of an obstetrical patient in each trimester.
- ii. Identify the differential diagnosis for a pregnant patient with lower extremity edema.
- iii. Identify common osteopathic structural findings in pregnancy which occur to accommodate the shifting center of gravity.
- iv. Name the fascial regions/diaphragms which can restrict lymphatic flow.
- v. Identify structures/regions that may be treated with OMT in order to balance the autonomic nervous system.
- vi. From a list, identify common diagnoses/approaches to be considered in an obstetrical patient with low back pain.
- vii. Distinguish the 5 models used in osteopathic patient care for an obstetrical patient with lower extremity edema and low back pain.
- viii. Identify an Osteopathic approach to the diagnosis and treatment of an obstetrical patient with somatic dysfunction of the lumbar spine, sacrum, pelvis, and lower extremity.
- ix. Identify methods to incorporate holistic care in the management of patients receiving OB or gyn care

- x. Demonstrate proficiency in the evaluation and appropriate direct and/or indirect osteopathic treatment for somatic dysfunctions found commonly in the obstetrical patient
- xi. Osteopathic techniques reviewed in lab may include any of the following techniques
 - a. Direct Techniques
 - 1) Direct and indirect Myofascial Release horizontal diaphragms
 - 2) Ischiorectal fossa technique
 - 3) Effleurage
 - 4) Pedal Pumps
 - 5) OB Roll direct MFR and Articularatory
 - 6) Direct Myofascial Release “Frog Leg Technique”
 - 7) Lumbar soft tissue
 - 8) Myofascial release sacroiliac joint
 - b. Indirect Techniques
 - 1) Counterstrain lumbar
 - 2) Counterstrain piriformis
 - 3) Myofascial release sacroiliac joint
 - 4) Indirect balancing sacrum

2. Workshop 2: Pediatrics

A. The Common Cold

Reading Assignment: Readings may be assigned specific to each OMM workshop at the time of the workshop.

Learning Objectives:

- i. Discuss the benefits of using OMT treatment in a patient with a URI
- ii. Recall the effects of the sympathetic and parasympathetic nervous system on congestion and nasal mucosa
- iii. Identify specific areas of the body which may be treated with OMT to help in alleviating URI symptoms
- iv. Describe the effect the cranial rhythmic impulse has on sinus drainage and which bones are most directly involved.

B. Asthma

Reading Assignment: Readings may be assigned specific to each OMM workshop at the time of the workshop.

Learning Objectives:

- i. Discuss the benefits of using OMT in a patient with asthma.
- ii. Recognize the specific areas of the musculoskeletal system which, if dysfunctional, may contribute to or exacerbate respiration.
- iii. Identify OMM treatment approaches to the care of patients with acute and chronic asthma

C. Ear Pain

Reading Assignment: Readings may be assigned specific to each OMM workshop at the time of the workshop.

Learning Objectives:

- i. Identify different etiologies of ear pain.
- ii. Identify the recommended osteopathic treatments for acute otitis media
- iii. Describe the relationship between the cranial base and Eustachian tube.
- iv. Demonstrate proficiency in the evaluation and appropriate direct and/or indirect osteopathic treatment for somatic dysfunctions found commonly in the pediatric patient
- v. Osteopathic techniques reviewed in lab may include any of the following techniques

- a. Direct techniques
 - 1) Direct myofascial release to horizontal diaphragms
 - 2) Soft tissue cervical lymphatic drainage
 - 3) Sinus effleurage
 - 4) Vomer rocking
 - 5) Sphenopalantine ganglion release
 - 6) Rib Raising
 - 7) Thoracic Pump
 - 8) Galbreath maneuver
 - 9) Auricular drainage
 - 10) Temporal Ear Pull
- b. Indirect techniques
 - 1) Myofascial unwinding of chest wall
 - 2) Indirect myofascial release to horizontal diaphragms
 - 3) Seated Balanced Ligamentous Tension abdominal diaphragm

3. Workshop 3: Psychiatry

A. Psychoneuroimmunology

Reading Assignment: Readings may be assigned specific to each OMM workshop at the time of the workshop.

Learning Objectives:

- i. Identify the areas of the immune system that are affected by stressors.
- ii. Describe the response of the HPA axis and sympathetic nervous system to stressors.
- iii. Identify the signs/symptoms of depression, anxiety, substance abuse and insomnia
- iv. Identify the common medical conditions that can present with psychiatric manifestations.
- v. Identify the common psychiatric conditions that can present with physical manifestations.
- vi. Identify specific indications and contraindications for OMM in psychiatric patients
- vii. Identify OMM treatment approaches to the care of patients with depression, anxiety, and/or other psychiatric diagnoses
- viii. Identify methods to incorporate holistic care in the management of the patient with psychiatric disorders
- ix. Identify special considerations in developing OMM treatment plans for patients with a psychiatric diagnosis and/or abuse history
 - a. Additional elements of consent
 - b. Safety of patient and provider
 - c. Possible treatment reactions

B. Headaches

Reading Assignment: Readings may be assigned specific to each OMM workshop at the time of the workshop.

Learning Objectives:

- i. Provide the clinical definitions of tension vs migraine vs cluster headaches and describe their pathophysiology.
- ii. Provide a differential diagnosis of headaches and utilize clues in the patient's history to narrow your differential.
- iii. Identify each component of the "five model" Osteopathic approach to patient care when using osteopathic manipulative medicine in the treatment of headaches.
- iv. Identify OMM treatment approaches to the care of patients with tension headaches, sinus headaches and migraines.

- v. Identify specific indications and contraindications for OMM in headache patients
- vi. Identify methods to incorporate holistic care in the management of the patient with headaches
- vii. Demonstrate proficiency in the evaluation and appropriate direct and/or indirect osteopathic treatment for somatic dysfunctions found commonly in patients with psychiatric disorders
- viii. Osteopathic techniques reviewed in lab may include any of the following techniques
 - a. Direct Techniques
 - 1) Scalene ME
 - 2) Trapezius Inhibition
 - 3) Soft tissue and MFR Rib Raising -seated
 - 4) Suboccipital release
 - 5) Venous Sinus Technique
 - 6) MFR Linea Alba
 - 7) Pectoral Traction
 - 8) Direct MFR horizontal diaphragms
 - 9) Sacral Rocking
 - 10) ME Pubic symphysis
 - 11) Direct MFR Pelvic floor
 - b. Indirect Techniques
 - 1) Counterstrain Pectoralis m.
 - 2) CV4
 - 3) Indirect MFR horizontal diaphragms

4. Workshop 4: Surgery

A. Atelectasis and Mechanical Ventilation

Reading Assignment: Readings may be assigned specific to each OMM workshop at the time of the workshop.

Learning Objectives:

- i. Identify the role of OMM in surgical patients, both pre-op and post-op.
- ii. List the areas of sympathetic hyperactivity that may reflect a respiratory disease process.
- iii. List the signs and symptoms associated with hypersympathetic stimulation of the respiratory system.
- iv. List the signs and symptoms associated with hyperparasympathetic stimulation of the respiratory system.
- v. Describe the common osteopathic structural findings associated with atelectasis.
- vi. Describe the common osteopathic structural findings associated with mechanical ventilation.
- vii. Identify specific indications and contraindications for OMM in patients with mechanical ventilation.
- viii. Identify OMM treatment approaches to the care of patients with atelectasis and those on mechanical ventilation.

B. Post-op Ileus

Reading Assignment: Readings may be assigned specific to each OMM workshop at the time of the workshop.

Learning Objectives:

- i. Describe the sympathetic innervation to the colon
- ii. Describe the parasympathetic innervation to the colon.
- iii. Identify the effects of hypersympathetic tone on the GI system
- iv. Identify the effects of hyperparasympathetic tone on the GI system

- v. Describe OMM techniques directed at addressing hyper sympathetic and hyperparasympathetic tone
- vi. Identify the signs and symptoms of post-operative ileus
- vii. Identify standard of care treatment plans for post-operative ileus
- viii. Identify OMM treatment plans for the care of patients with post-operative ileus
- ix. Identify specific indications and contraindications for OMM in pre and post-operative patients
- x. Identify methods to incorporate holistic care in the management of the hospitalized patient
- xi. Demonstrate proficiency in the evaluation and appropriate direct and/or indirect osteopathic treatment for somatic dysfunctions found commonly in post-surgical patients
- xii. Osteopathic techniques reviewed in lab may include any of the following techniques
 - a. Direct Techniques
 - 1) Direct MFR to horizontal diaphragms
 - 2) Direct MFR cervical region
 - 3) Rib Raising Direct MFR/Inhibition/articulatory
 - 4) Sacral Rocking
 - 5) Direct MFR-Arcuate ligaments
 - b. Indirect Techniques
 - 1) BLT ribs
 - 2) Thoracic Pump
 - 3) Abdominal Pump
 - 4) Pedal Pump
 - 5) Thoracolumbar paraspinal inhibition
 - 6) Mesenteric Ganglion Release
 - 7) Mesenteric Release small and large intestines
 - 8) Colonic Milking
 - 9) Indirect MFR to horizontal

5. Workshop 5: Billing, Coding and Technique Review

A. Billing and Coding

Reading Assignment: Readings may be assigned specific to each OMM workshop at the time of the workshop.

Learning Objectives:

- i. Identify appropriate documentation of somatic dysfunctions.
- ii. Identify appropriate documentation of osteopathic treatment modalities.
- iii. Recall the components an appropriate procedure note for an OMM treatment.
- iv. Recognize common errors in OMM procedure note documentation.
- v. Identify appropriate CPT and E/M codes for Osteopathic treatment encounters.
- vi. Recall proper use of CPT modifiers as it applies to OMM billing.