IM 665
Advanced Emergency Medicine Clerkship – to be used for Selective/Electives 1-34

Selective/Elective Clerkship Rotation Syllabus

Osteopathic Medical Specialties
Mary Hughes DO

Chairperson, Instructor of Record

Mary Hughes DO/ Nikolai Butki DO

hughesm@msu.edu; butkinik@msu.edu (50%/50% for CLIFMS effort)

Co-Course Directors

For all questions regarding content or administrative aspects of this course, contact

Last updated 1-1-2015

Steven Stone
stonest@msu.edu

Department Course Coordinator

MSUCOM constantly strives to improve and advance its curriculum through innovation while assuring compliance with current AOA accreditation standards. While major changes are generally instituted at the beginning of each academic year, minor changes may be implemented semester to semester. Please be mindful of the need to read your syllabi before beginning your rotations.
Before you start to read the syllabus, please make a note of this important information below from Dr. Mary Hughes pertaining to the ER end-of-rotation exam (please see page 3 for more exam information):

Due to the vast knowledge and possibilities for learning in EM, the faculty for selective/elective rotations has chosen the following format to further your education and allow you an advanced understanding of EM as a specialty. To that end, modules have been created for your learning enhancement. These modules will all be placed online and during your 2nd or subsequent EM rotation(s) you will need to complete different modules than the original CORE IM 657 rotation. Each selective/elective EM rotation will have a different set of modules, so make sure you are logging into the correct D2L site. Each module will have a 12-item quiz of which you must obtain 9 answers correct to successfully complete the module. There are four modules per selective/elective rotation. Make sure you are completing the proper one. The syllabus is very self-explanatory if you read it carefully paying particular attention to the selective/elective # of EM that you are completing.

Regarding the logs: There are several procedures and patient types that are expected to be completed on patients while on this rotation. It is your duty to seek them out, and then log them. For example, let the nurses know that you need to start two IV’s, and then, even if it is not your primary patient they will come and get you to complete this task, and then you can log it. These are mandatory to ensure your breadth of exposure. You do not have to be the primary provider on the patient to log them, but do need to do the things requested in order to log the patient. Being proactive about these requirements will assure their completion, but waiting until the last week to read the syllabus will almost assure that you will need to go back for additional shifts to meet the minimum requirements.

INTRODUCTION

Welcome to the Emergency Medicine Service. We think you will find your experience with us a valuable one. Our physicians strive to treat patients with quality and compassionate care. We ask that you treat all patients with the same care that you would expect for those close to you.

This rotation is a balance of clinical encounters, didactic sessions and reading assignments. This blend will provide you with a strong foundation in your approach to urgent and critical emergency conditions. There will be much one-to-one teaching on this rotation. You will find our emergency department physicians to be easily approachable and readily available, but you ultimately will determine what your experience will be. The more interest you demonstrate in learning, the more teaching you will receive.

This syllabus lists the minimum didactic requirements that are due at the end of your rotation. Emergency Medicine conferences are mandatory and you must check with your local emergency department rotation office for time and date schedules that will be in effect for your rotation dates. As far as scheduling goes, you must meet as per the syllabus of the department where you will be rotating to set up your initial assigned schedule. However, you may not work more than 5 shifts in a row, nor do ‘double shifts’ or be scheduled for more than 4 consecutive days off in a row. Additionally, you may not work more than one shift in a 24 hour period. Failure to comply with this will result in further time at the emergency department or a letter to your student file stating that you were unable to follow syllabus directions.

Regarding EMS: You only need to complete this requirement once, typically while on your IM 657 CORE rotation, UNLESS the hospital where you are rotating requires it in addition to your
shifts. If the hospital where you are completing a selective/elective requires and EMS experience you are required to do it. They will be responsible for collecting and verifying your completion, which will affect whether you pass based on their criteria. You will not need to submit to MSUCOM as it is not a requirement for every student on IM 665.

**EVALUATION:**

To successfully complete this rotation you must do **ALL** of the following:

A. Meet with the department where you will be rotating prior to the rotation and set your schedule, pick up your rotation book, obtain the conference schedule, and any other mandatory requirements as per the department.

B. Complete all assigned shifts. All EM Rotations are 4 weeks in length whether your core or selective/elective; absences due to vacations, interviewing, or other such activities are not acceptable. You may not work more than 5 shifts in a row or be scheduled for more than 4 consecutive days off in a row. Additionally, you may not work more than one shift in a 24-hour period. There has to be shifts scheduled in each week of the four week rotation. Conference lectures do not count as shifts worked. Because different hospitals have different lengths of shifts, the total number of shifts will vary by site, but may be no less than 14 of 28 days, excluding conference time. You will need to send in your shift schedule. If you have an electronic version of this schedule, please post it to the drop box in D2L. Otherwise, please mail or fax it by 11pm the last Sunday of the rotation to:

MSU College of Osteopathic Medicine, Department of OMS
ATTN: Steve Stone
909 Fee Rd., B315A West Fee Hall
East Lansing, MI 48824
Fax: 517-432-1062

C. You must complete and return the required Patient types and Procedures checklist, and evaluations to the proper D2L course drop boxes for each EM Selective/Elective Rotation. All materials are to be posted in the D2L course site for IM 665 no later 11pm the last Sunday of the rotation.

D. Log onto the D2L website for this course and complete four modules with their quizzes as described above. A 75% is needed to pass. All students who fail to complete four modules while on rotation will receive an “N” grade.

E. Return all rotation books to the hospital emergency department office within one week of the end of the rotation.

F. Attend all scheduled conferences as assigned.

G. Complete any additional didactic work as required by your local emergency department and return to their office by their deadlines. **This MAY include an EMS option.**
H. If illness precludes you from completing a shift, you must make it up.

I. **Vacation may not be scheduled during this rotation.**

J. Interviewing time must occur on days that you are scheduled off. Any missed shifts must be made up.

K. Maintain professional appearance and behavior at all times. You must achieve a satisfactory level on the direct observation rating form. Ratings of unsatisfactory in any category will be reviewed with you by a member of the MSU/COM Emergency Medicine faculty with a specific plan for remediation to be decided on a case-by-case basis.

L. All written work must be original and completed on an individual basis.

M. Board exams may be scheduled during this time, but most students should be able to schedule their shifts around their board schedule. If not, please email Steve Stone (stonest@msu.edu) as soon as you are aware that there will be a problem ahead of the conflict so alternatives may be arranged.

   All students who fail to take four module exams and achieve a 75% on each, complete patient logs of required/observed patient types and procedures and procedure logs by 11pm on the last Sunday of the rotation may receive an N grade. It is the duty of the student to assure their arrival, so therefore it is **always a good idea to keep a copy of everything you send in.** An N grade will result in a meeting with the Committee on Student Evaluation. Following COSE’s action, the student MAY be allowed some form of remediation of the deficiency(ies) up to and including a complete repetition of the rotation.

   Although it is recognized that rotation evaluations are not under the complete control of the student, it is still the responsibility of the student to assure their timely completion. Any rotation evaluation not received by the end of the semester in which the rotation was completed will result in an ET grade for the student. The evaluation must be completed and submitted within the two week deadline and preferably sent in during that time period. Any student who does not complete 4 weeks of Emergency Medicine will receive an N grade unless excused. This is a selective/elective 4-week rotation, and therefore, vacation and interviewing time may not be taken during this month if it compromises the total number of shifts you are required to complete.

---

Failure to do any of the above will result in an “N” grade and require remediation as determined by the Department of Osteopathic Medical Specialties at MSU/COM. Failure to upload/fax or mail required materials by 11pm the last Sunday of the rotation may result in an “N” grade as stated above as well.
### Summary of MSUCOM Requirements and Submission Methods for Selective/Elective EM Rotations

<table>
<thead>
<tr>
<th>Item</th>
<th>Submission Method</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Module Quizzes</td>
<td>Taken in D2L – grade must be 75% or higher on all four modules</td>
<td>11pm Last Sunday of Rotation</td>
</tr>
<tr>
<td>EM Shift Schedule</td>
<td>Online D2L Drop Box if you have access to a scanner -or- Mail to: MSUCOM, Dept of OMS ATTN: Steve Stone 909 Fee Rd., B315A West Fee Hall East Lansing, MI 48824</td>
<td>11pm Last Sunday of Rotation</td>
</tr>
<tr>
<td>Logs of required/observed patient types and procedures <strong>Make sure to use the one for EM Selective/Elective rotations</strong></td>
<td>Online D2L Drop Box See page 25 of syllabus</td>
<td>11pm Last Sunday of Rotation</td>
</tr>
<tr>
<td>Student Evaluation of Rotation</td>
<td>Online through the Kobiljak</td>
<td>11pm Last Sunday of Rotation</td>
</tr>
<tr>
<td>Attending Evaluation of Rotation</td>
<td>To be appropriately submitted per the instructions at the end of each evaluation form</td>
<td>Final Day of Rotation</td>
</tr>
</tbody>
</table>

*the determination of a satisfactory attending evaluation is governed by the University’s Policy for Retention, Promotion, and Graduation*
IM 665 Advanced Emergency Medicine Corrective Action Policy

Following each module of the rotation the student will take a multiple question post-test examination. Materials will come specifically from the required readings and objectives. Exam will be found in D2L.

A 75% grade is necessary to pass this portion of the rotation. If the student does not pass the weekly exam, a remediation weekly exam will be offered one week after the end of rotation for each module not passed. If the student still does not pass, possible further remediation will be determined by chairperson up to and including the assignment of an N Grade.

IMPORTANT NOTE: Attending Evaluations do not follow the above “Corrective Action” process. Marginal Attending Evaluations will be reviewed on a case-by-case basis by the department, where the Instructor of Record will then determine whether to give the students a Pass or an N grade for the rotation. If the department determines students will be given an N grade in light of the evaluation, they will then proceed to “Remediation Policy” process.
SPECIAL CONSIDERATIONS

A. Medicare Cases Per HCFA regulations, medical students may not perform the primary documentation on the chart of a patient with Medicare Insurance if the department wishes to obtain reimbursement for this care. Medical students may participate in the care of these patients but may not be the primary caregiver. There may be other special types of insurance that have the same rules in the area where you are performing your emergency department rotation and you must follow the department rules regarding who you may and may not see.

B. Special Cases

Due to the delicate nature and legal issues, alleged criminal sexual conduct, assault and child abuse cases are not to be seen by students rotating in the emergency department. If during a patient encounter you suspect such is the case, notify the attending physician immediately and remove yourself from the care of this patient. Do not write on this patient’s chart.

C. Attire

First impressions are very important. You must wear a clean lab jacket and professional attire at all times. Name tags must be worn at all times, and above the waist. Clean scrubs are generally acceptable, but blue jeans are never acceptable. Due to occupational safety and health administration regulations, socks must be worn at all times, even with sandals. No open toed sandals may be worn.

D. Sharps

After using suture trays, all sharps must be disposed of in the appropriate manner and the tray brought to the dirty utility room. This is a responsibility of the person performing the procedure and you must take care to remove all sharp instruments to avoid injury to your coworkers.

E. Keys to Good Care

See a limited number of patients and give them exceptional care. At all times know the status and results of all labs and x-rays. Constantly reassess your patients and update them of their status in the process. Your attending physician should be able to easily access information through you. In short, take full responsibility for all aspects of the patient’s care.
REFERENCES

For the didactic portion from MSU/COM Department of Osteopathic Medical Specialties all readings and answers are to be referenced from the following sources, which should be available in every emergency department in which you rotate and are available through MSU Libraries Access Emergency Medicine or Access Medicine with your login.


*Acad Emerg Med; The 3-Minute Emergency Medicine Medical Student Presentation: A Variation on a Theme.* Davenport C., Honigman B., Druck J. 2008 Jul; 15(7):683-7

Available through MSU Libraries. On the website homepage select “Resources” then select “E-resources” Under “Find Electronic Journals” type in “Academic Emergency Medicine” then click “Search” select “From 1997 to Present”. Under “Find Issues” select “All issues” Select “2008” then select “Volume 15, Issue 7” Article is listed under heading “Special Contributions”.

Create an account in Access Emergency Medicine if you have not done so yet and use for this rotation.

Access EM directions
On the MSU Libraries main page: Quick Links, click on Electronic Resources
Under E-resources, click on Texts and Links
Clicking on that will then take you to the MSU NetID login site and then you can get access.

Other readings as per each module.

In addition, your hospital may require additional articles, videos, or other forms of information to be obtained and utilized by you to further answer didactic questions that they may assign. The chief of the emergency department at your hospital will be responsible for assigning a grade to their specific material.
The clerkship consists of four weeks of more advanced emergency department experiences. This service should expose the student to various aspects of management of patients in an emergency department. These experiences should include reading, lectures, seminars, and patient care management.

Emergency medicine has enjoyed increasing popularity and stature in osteopathic medical schools throughout the United States. It occupies a unique niche in medical education in that it provides students with the opportunity to see an undifferentiated patient population with varying modes of presentation. This experience will stress diagnostic skills, ability to prioritize patient care and exposure to new diagnostic skills, i.e., toxicology and environmental injuries, and different views of problems that you may have only seen in the hospital or other practical settings.

**GOALS OF THE EMERGENCY MEDICINE SELECTIVE/ELECTIVE CLERKSHIP**

I. Provide the student with more advanced knowledge of specific topics in emergency medicine.

II. Introduce the student to basic procedures relevant to the practice of emergency medicine.

III. Facilitate an understanding of the approach to acute care clinical problem solving.

IV. Continue to promote the acquisition of basic skills for the diagnosis and management of common emergencies.

V. Encourage the continued development of the student’s professional attitude and behavior.

**OBJECTIVES**

Learning objectives for the emergency medicine clerkship relate to the following areas: a) cognitive knowledge; b) psychomotor skills; c) problem solving; and d) professional development.

By the end of the four-week emergency medicine selective/elective clerkship, the student is expected to have achieved, at a minimum, the following objectives through reading, conference attendance, observation, discussion, and hands-on clinical experience:

**LEARNING ACTIVITIES**

Learning activities will vary among hospital emergency departments, however, certain activities should be completed in each emergency medicine clerkship. The following are examples of learning activities each student should accomplish when on an emergency medicine clerkship:
1. **READING:** See modules’ individual lists.

2. **HISTORY AND PHYSICAL REVIEW:** An important portion of your learning will be in the evaluation of patients while obtaining historical data and performing physical examinations. For each patient this information will be reviewed with an intern, resident, or attending physician.

3. **LECTURES:** Lectures on various topics are usually given at least once a week. They are intended to provide up-to-date information on clinical and research findings and techniques in various fields. They may be given by a guest speaker who is an expert on the topic. If your hospital has a mid-day or other regular lecture program, you are expected to attend.

**IM 665 is the course number given to any general emergency medicine selective or elective following your core IM 657 rotation, and therefore you must follow the directions carefully so as to be completing the correct items to receive your grade. Each subsequent rotation will have the same IM 665 course number, but the materials required to be completed for a passing grade will be different for each. You may not do more than three selective/elective rotations in any one specialty.**

Each week’s material will have a 12 item quiz that you will take in D2L. A score of 75% is required to successfully complete the module. If you do not achieve a 75% you may request one time only to have the test reset. It would be recommended that you restudy the content before attempting the quiz a second time. If you do not complete successfully (75%) on the second attempt then you must complete a two page paper with references on a question given to you by the instructor of record. You will have 2 weeks to complete it and submit it to the instructor of record for review. Each quiz has a question bank associated with it so you will receive similar but not identical questions on each quiz as they are randomly generated by the computer.
Selective/Elective #1 The following four modules are to be completed on your first Selective/elective rotation, whenever that occurs.

Module #1: Introduction to Ultrasound (NB)

Objectives: By the end of this module, a 4th year medical student will be able to:
1. Differentiate between B-mode and M-mode ultrasound modalities
2. Identify the purposes of the FAST Exam
3. Identify the 4 positions of the FAST exam
4. Describe the appearance of free intraperitoneal fluid on an ultrasound image.
5. Identify sufficient ultrasound image findings that can exclude an ectopic pregnancy in a low risk, non-fertility treatment pregnant female presenting with abdominal pain and bleeding.
6. Identify ultrasound findings suggestive of an ectopic pregnancy.

Reading List:
- Access Emergency Medicine: Ma and Master’s Emergency Ultrasound. Chapter 3: Physics and Image Artifacts
- Access Emergency Medicine: Ma and Master’s Emergency Ultrasound. Chapter 5: Trauma

Questions to Ponder:

Module #2: Toxicology: Introduction to the Poisoned Patient (MH)

Objectives
1. State the basic principles of drug absorption, metabolism, and excretion
2. State the components of the COMA cocktail
3. Discuss the use of activated charcoal, including single and multiple dose, and its contraindications
4. Discuss the use of sorbitol as a laxative and its contraindications
5. Discuss the use of whole bowel irrigation and its indications
6. Discuss the concept of half-life and what it means in terms of antidote treatment and monitoring
7. Discuss the concept of fat soluble, water soluble and first pass effect in the context of an overdose

Reading list - syllabus material provided in D2L

PowerPoint slide presentation - found on D2L
Module #3: Trauma: Introduction to the Traumatized Patient (MH)

Objectives
1. Organize the evaluation of a trauma patient by primary survey, resuscitative phase, secondary survey and definitive care.
2. List the components of primary survey, resuscitative phase, secondary survey and definitive care.
3. List the components of the AMPLE history.
4. Be able to identify the clinical scenario of tension pneumothorax, cardiac tamponade, sucking chest wound, and flail chest.
5. Be able to identify the clinical scenario of a patient likely to have a splenic or hepatic injury with blood loss.
6. Be able to recognize the patient who has hypovolemic shock.
7. Be able to identify the differences in presentations between adults, children and the elderly as it relates to traumatic conditions.
8. Be able to identify the differences between the adult female who is pregnant in various trimesters from the non-pregnant adult female who suffers a traumatic injury.

Reading list
David M. Cline, O. John Ma, Rita K. Cydulka, Garth D. Meckler, Daniel A. Handel, Stephen H. Thomas

Section 18 Trauma, Read Chapters 156, 157, 158 and 159.

Questions to ponder:
Does blood pressure alone define hypovolemic shock in the patient with a traumatic injury?
Be able to identify different activities that are appropriate to be conducted during the primary survey, resuscitative phase, secondary survey and definitive care.
Differentiate the typical presentations for pediatric and geriatric trauma patients and why they might be different from the typical adult patient.
Why is it important to resuscitate the mother before the baby?
What are the normal respiratory changes in pregnancy?
Which procedures need to be performed differently in the pregnant patient?

Module #4. Pediatrics: Approach to the Febrile Child (NB)

Objectives:
By the end of this module, a 4th year medical student will be able to:
1. Define the neonatal period.
2. Define a fever in terms of temperature and method of obtaining.
3. Recognize hypothermia as a sign of sepsis in the neonatal period.
4. State the appropriate evaluation for a febrile neonate.
5. Identify characteristics that characterize febrile children >3mo old to have low risk for SBI.
6. Explain the mechanisms humans use to maintain thermoregulation.
7. Identify signs and symptoms that indicate toxicity in children.
8. State the appropriate emergent management for children who are exhibiting signs or symptoms of toxicity.
9. Identify risk factors in otherwise well appearing children that place them at risk for serious bacterial infection.
Reading list

Section 1: Cardinal Presentations. Ch. 2: The Febrile- or Septic-Appearing Neonate.


Questions to ponder

Access Emergency Medicine: Case Files: Emergency Medicine, 3e. Fever without a source in a 1-3 month old infant.
Selective/Elective #2 The following four modules are to be completed on your second Selective/elective rotation, whenever that occurs.

Module #1: Review of anticoagulant medications: their indications, contraindications, and antidotes (NB) Under Construction

Objectives
1. Discuss the coagulation cascade and identify the location of action of warfarin, clopidigril, xeralto, heparin, low-molecular weight heparins
2. Discuss the management of an elevated INR in the presence or absence of bleeding
3. Discuss the indications for bebulin, protamine, vitamin K, platelets, fresh frozen plasma, transxemamic acid

Reading list
Questions to ponder
PowerPoint slide presentation - found on D2L

Module #2: Toxicology: Acetaminophen, aspirin, alcohols (MH)

Objectives
1. Be able to state the different rates of absorption of various salicylate containing products, and sources of salicylate besides aspirin
2. Be able to discuss the various stages of salicylate intoxication, and the assorted biochemical derangements that occur with each, including the various acid base disturbances
3. Know the signs and symptoms of mild, moderate and severe poisoning with salicylates
4. Be able to discuss the various modalities used to treat mild, moderate and severe salicylate poisoning
5. Know the recommended doses and potentially toxic doses of acetaminophen in adults and children
6. Be able to recognize the stages of acetaminophen poisoning
7. Understand the use and limitations of the Rumack - Matthew nomogram in acetaminophen poisoning
8. Be able to list the metabolic pathways of acetaminophen poisoning
9. Be able to select appropriate therapy for a patient with an acetaminophen overdose
10. Be able to diagram and understand the metabolism of ethanol, isopropyl alcohol, methanol, and ethylene glycol.
11. Know the signs and symptoms and timeline for consequences of ingestion of ethanol, isopropyl alcohol, methanol, and ethylene glycol.
12. Know the appropriate use of antidotes and treatment guidelines for ingestion of ethanol, isopropyl alcohol, methanol, and ethylene glycol.

Reading list


**Questions to ponder**
- Why does the nomogram not work for extended release products or overdoses taken over a period of several hours for acetaminophen?
- Why do you need to alkalinize the urine on a patient with an aspirin overdose?
- Why do you need to do a complete physical exam on every intoxicated person, every time?
- What are household sources of methanol, ethylene glycol, and isopropyl alcohol?
- Not really an alcohol, but what compound is given off when methylene chloride (chemical in paint stripper) is metabolized?
Module #3: Pediatrics: Pediatric Rehydration and Calculation of Fluids and Electrolytes
Under Construction

Objectives (NB)
1. Define mild, moderate and severe dehydration
2. Define components of rehydration
3. Define common additives to rehydration fluids
4. Discuss weight based calculations of potassium, sodium, and fluids

Reading list
Questions to ponder
PowerPoint slide presentation - found on D2L

Module #4: Trauma: Mild Traumatic Brain Injury and Management: Concussion
Management and PECARN head CT rules (MH)

Objectives
1. Be able to apply the PECARN head CT rules in children
2. Define concussion
3. List common sequelae of concussion
4. Apply return to activity guidelines for patients recovering from a concussion
5. Discuss the process of reading a head CT for trauma
6. Know the components and classifications of the Glasgow Coma Scale
7. Discuss the classification of head injury into mild, moderate, severe, primary and secondary
8. Know the relationship between mean arterial pressure, systolic and diastolic blood pressure, intracranial pressure and cerebral perfusion pressure
9. Identify patterns of head injury based on clinical examination

Reading list


**Questions to ponder**

Why does elevation of the head of the bed decrease ICP

What is the effect of maintaining the head in the midline versus turned to one side on ICP

Regarding clinical decision rules, understand that they never supersede the clinician at the bedside’s exam and/or gestalt and are only guidelines.
Selective/Elective #3 The following four modules are to be completed on your third Selective/elective rotation, whenever that occurs.

Module #1: Metabolic Derangements: Diabetic Ketoacidosis, Hyperosmolar Non-ketotic coma, electrolyte disturbances including hypernatremia, hyponatremia, hyperkalemia, hypokalemia (NB) Under Construction

Objectives
1. Differentiate between DKA, HONK,
2. Discuss common electrolyte abnormalities seen in #1
3. Discuss the purpose of Kussmaul breathing
4. Be able to define initial treatment for patients presenting with a variety of fluid and electrolyte abnormalities in the setting of DKA and HONK
5. ADD hypernatremia, hyponatremia, hyperkalemia, and hypokalemia

Reading list
Questions to ponder
PowerPoint slide presentation - found on D2L

Module #2: Toxicology: CNS stimulants: cocaine, ecstasy, PCP, Crystal Meth, bath salts (MH)

Objectives
1. Be able to list the drugs that are considered stimulants.
2. Understand the use of benzodiazepines in the management of the acutely agitated patient.
3. Be able to list the medications and chemicals that lead to hallucinations.
4. Understand the mechanism of hyponatremia and possible seizures from ecstasy.
5. Be able to discuss cocaine related chest pain.
6. Understand the diagnostic scenario of cannibinoid hyperemesis syndrome.
7. Be able to use the eye signs to help differentiate the various stimulants, especially those causing hallucinations.

Reading list


Questions to ponder
1. Which class of antibiotics is known to cause hallucinations in the elderly?
2. What one question can you ask that may get at the cause of intractable nausea and vomiting being related to excess cannabinoid ingestion in any form.
3. What is the responsibility of the clinician if a child presents with obvious exposure to drugs of abuse?

Module #3: Trauma: Environmental: Heat, Cold, Burns (MH)
Objectives
1. Define trench foot, chilblains, hypothermia and the stages of frostbite
2. Discuss the management of trench foot, chilblains, hypothermia and the stages of frostbite
3. Discuss the common rhythm disturbances seen with hypothermia
4. Be able to recognize and Osborn J wave as a marker of hypothermia
5. Be able to calculate percent body surface area burned
6. Be able to calculate fluid requirements for the first 24 hours for a burn victim
7. Be able to differentiate prickly heat, heat exhaustion and heat stroke
8. Understand the mechanisms by which the body dissipates excess heat

Reading list


Review Mediasite recording for dermatology on Heat and Cold Emergencies
**Mediasite link found on D2L**

**Case 45 on** [Accessedemergencymedicine](http://accessemergencymedicine.mhmedical.com/content.aspx?bookid=521&Sectionid=410690) **Clip**

**Author(s):** Eugene C. Toy, Barry C. Simon, Katrin Y. Takenaka, Terrence H. Liu, Adam J. Rosh

**Questions to ponder**
1. Think about the medications patients are on and which may make it difficult to thermoregulate

**Module #4. Pediatrics: Pediatric Poisoning (NB) Under Construction**

**Objectives**
1. Develop a list of common medications in which one pill could kill an inquisitive 2 year old.
2. Develop a poison control sheet to hand out to parents/grandparents discussing the risks of certain medications that fit into the one-pill can kill category

**Reading list**

**Questions to ponder**

PowerPoint slide presentation - found on D2L
Unsatisfactory Clinical Performance

A student’s clinical performance will be assessed through the Attending Evaluation. A satisfactory Attending Evaluation is required for completion of the clinical requirements for the course.

Unsatisfactory Attending Evaluations are governed by the Policy for Retention, Promotion and Graduation. Evaluations with below average scores in two or more categories defined as rankings of Needs Improvement/Unsatisfactory (on a scale of Needs Improvement/Unsatisfactory-Exceptional) or 3 and below (on a numerical scale of 1-7) will be referred to the Department Chairperson/Instructor of Record for review and grade determination.

Any student with two or more marginal evaluations will be referred to the COSE Clerkship Performance Subcommittee for review.

IMPORTANT NOTE: The student will maintain an “Extended” (ET) grade until they have successfully completed all academic and clinical requirements for the course.

“N” Grade and Remediation

http://com.msu.edu/Students/Policies_and_Programs/Remediation_Policy.htm

A student who receives an “N” grade will be required to appear before the Committee on Student Evaluation (COSE) Clerkship Performance Subcommittee for review of the student’s overall performance. The Subcommittee may recommend that the student who has received an "N" grade be permitted to remediate the “N” grade (see below) or academically dismissed. If a student is recommended for dismissal, the student will appear before COSE to have their status in MSUCOM determined. COSE will review the student’s academic/clinical performance; determine whether dismissal is appropriate or if the student’s circumstances warrant an opportunity for continuation in the curriculum. The student’s eligibility to remediate will be determined following this COSE decision.

Remediation is the method by which course objectives will be met after receiving an "N" grade. Remediation will be offered only after the student’s eligibility for remediation has been determined.

To successfully remediate an “N” grade, a student must demonstrate mastery of the course objectives. To do this the student may be required to retake the course or enroll and participate in a College directed study course demonstrating successful mastery of the course objectives.
Upon remediation of the “N” grade, the original “N” grade remains on the permanent transcript along with the grade, “P” or “N,” for the remediation experience.

**MSU College of Osteopathic Medicine Standard Policies**

The following are standard MSUCOM policies across all Clerkship rotations.

**ATTENDANCE POLICY**

**Attendance at all scheduled Clerkship activities is mandatory.**

If a student is unable to be present for a scheduled clerkship activity because of extenuating circumstances, the student is required to complete a [Clerkship Excused Absence Request form](#). In all cases except for emergencies or sudden illness, requests for scheduled absences are to be submitted at least 30 days prior to the date(s) of absence. Absences are not approved until the form is completed with all required signatures. Once approved, the student is required to notify their preceptor of their absence within 24 hours. Failure to complete this form or obtain required signatures will result in an unexcused absence from the rotation. Unexcused absences are considered unprofessional behavior and could be noted as a mark of unprofessionalism on the student’s performance evaluation, and may lead to failure of the rotation.

**An absence request for the first or last day of the rotation will be denied.** All absences (excused or unexcused) must be made up as specified on the Excused Absence Form as outlined under the conditions of approval. Makeup experience will be determined by the Director of Medical Education and may include additional clinical day(s) or written assignment(s).

If a student has an emergency or sudden illness they should immediately notify the Director of Medical Education and rotation preceptor. The excused absence request form must be submitted to the Medical Education Office within 24 hours of the original emergency or sudden illness notification.

**STATEMENT OF PROFESSIONALISM**

Principles of professionalism are not rules that specify behaviors, but guidelines that provide direction in identifying appropriate conduct. These principles include the safety and welfare of patients, competence in knowledge and skills, responsibility for consequences of actions, professional communication, confidentiality, and lifelong learning for maintenance of professional skills and judgments. Professionalism and professional ethics are terms that signify certain scholastic, interpersonal and behavioral expectations. Among the characteristics included in this context are the knowledge, competence, demeanor, attitude, appearance, mannerisms, integrity and morals displayed by the student to faculty, peers, patients and colleagues in other health care professions. Students are expected to conduct themselves at all times in a professional manner and to exhibit characteristics of a professional student.
STUDENTS RIGHTS AND RESPONSIBILITIES

Each individual student is responsible for their behavior and is expected to maintain standards of academic honesty. Students share the responsibility with faculty for creating an environment that supports academic honesty and principles of professionalism. Proper relationship between faculty and student are fundamental to the college's function and this should be built on mutual respect and understanding together with shared dedication to the education process. It is a fundamental belief that each student is worthy of trust and that each student has the right to live in an academic environment that is free of injustice caused by dishonesty. While students have an obligation to assist their fellow students in meeting the common goals of their education, students have an equal obligation to maintain the highest standards of personal integrity.

FACULTY RESPONSIBILITIES

It is the responsibility of the college faculty to specify the limits of authorized aid (including but not limited to exams, study aids, internet resources and materials from senior students) in their syllabi, and it is the responsibility of students to honor and adhere to those limits. Course instructors shall inform students at the beginning of the semester of any special criteria of academic honesty pertinent to the class or course.

It is the responsibility of the clinical faculty to provide students with ongoing feedback during rotation upon request. Clinical faculty are generally recommended (though not required) to limit student assigned duty hours from 40 to 60 hours weekly (and not exceeding 60 hours). Both faculty and students are to be treated fairly and professionally in order to maintain a proper working relationship between trainer and trainee.

COURSE GRADES

- **P-Pass** – means that credit is granted and that the student achieved a level of performance judged to be satisfactory according to didactic and clinical performance by the department.
- **N-No Grade** – means that no credit is granted and that the student did not achieve a level of performance judged to be satisfactory according to didactic and clinical performance by the department.
- **ET-Extended Grade** – means that a final grade (“Pass” or “No Grade”) cannot be determined due to one or more missing course requirements. Once all course requirements have been completed, received, and processed, the ET grade will be changed to a final grade. An “ET” will NOT remain on a student’s transcript.
ROTATION EVALUATIONS

Attending/Faculty/Resident Evaluation of Student

Students are responsible for assuring that his/her clinical supervisor receives the appropriate evaluation form. Forms can be accessed via the “Attending Evaluation” link in the student’s Kobiljak online Clerkship schedule.

Students should assertively seek feedback on his/her performance throughout the course of the clinical rotation. Students should also sit down and discuss the formal evaluation with the clinical supervisor.

Students should keep a copy of the evaluation and turn the original in to the “Office of the Registrar” upon their return from the rotation. Any evidence of tampering or modification while in the possession of the student will be considered “unprofessional behavior” resulting in an “N” grade and review by the Committee on Student Evaluation (COSE) and/or the College Hearing Committee.

Grades are held until all rotation requirements, including evaluation forms, are received. Be sure you are using the correct form.

Student Evaluation of Rotation

Students will submit their rotation evaluations electronically at the conclusion of every rotation by accessing their online schedule through Kobiljak.

EXPOSURE INCIDENTS PROTOCOL

A form has been developed by the University to report exposure incidents. While on rotations that may occur outside of the base hospital system notify your attending immediately of any exposure and follow the MSU procedure for evaluation and treatment. You can access the form at

**Patient Types and Procedure Log**

<table>
<thead>
<tr>
<th>Procedure</th>
<th>#Required</th>
<th>Pt. Initials</th>
<th>Date</th>
<th>Supervisor Initials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toxicology (alcohol is a toxin)</td>
<td>1.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Major trauma</td>
<td>1.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EKG</td>
<td>1.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Head CT</td>
<td>1.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Geriatric Pt. (age &gt;65)</td>
<td>1.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pelvic exam</td>
<td>1.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FAST exam w/ultrasound</td>
<td>1.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laceration repair</td>
<td>1.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Structural exam (musculoskeletal)</td>
<td>1.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chest x-ray</td>
<td>1.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pediatric evaluation (Age &lt;8)</td>
<td>1.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Abdominal CT scan interpretation</td>
<td>1.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local anesthesia for laceration repair</td>
<td>1.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IV’s</td>
<td>1.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Draw ABG</td>
<td>1.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluate pt. with COPD or CHF</td>
<td>1.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>